



Seeing the Future



A Planning Guide for High Schools

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Contents

Acknowledgments ■ iv

Introduction: Seeing the Future ■ 1

Six Principles for High School Design

Overview ■ 5

Personalization ■ 7

Adult World Immersion ■ 11

Intellectual Mission ■ 15

Contexts for Reflection ■ 19

Community Partnership ■ 22

Teacher Ownership ■ 25

Design Principles Planning, Step-by-Step

Overview ■ 27

Creating a Vision ■ 29

Handouts ■ 32

Achieving the Vision ■ 45

Handouts ■ 48

Glossary ■ 61

Resources ■ 65

Appendix I: NUHS Sites at a Glance ■ 66

Appendix II: Design Principles in Action at the NUHS Sites ■ 73

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Seeing the Future

Introduction

on a cold January day in a midwestern city, we talked with ten students about their experiences in three career academies at the local high school. They told us about the work they were doing in internships outside the school, about the relationships they were forming with adults there, and about the relevance they now saw in their schoolwork. When we asked what they would change about the high school, a student replied, “Some kids’ attitudes.” The others nodded in agreement.

As it turned out, these students were talking about students who were not in any of the academies. They wished all their peers could have what they had: real applications for their studies and rich relationships with adults in the workplace and in school. As a student named Janelle¹ put it, “If you’re not in one of these programs, it’s kind of hard to see your future.” Indeed, 300 students were in those academies; 1100 were not.

Janelle’s observation evokes a question that has motivated the New Urban High School project (NUHS)² from the beginning: What would a school look like that prepared all its students for the future? Certainly there is no single model. The six sites selected for the NUHS project vary widely by size and type, including large, small, vocational, comprehensive, city-wide, and neighborhood schools. What they share is an atmosphere of respect for young people and a commitment to set high standards for all their students. The NUHS sites offer to every student what the best schools now offer only to some: personalization, intellectual challenge, and significant exposure to the adult world of work and learning.

This volume is a sequel and companion to *The New Urban High School: A Practitioner’s Guide*³ — a compendium of case studies and materials designed to assist educators in providing students with rigorous learning experiences in the school, workplace, and community. In that first volume, we presented six design principles drawn from the work of the NUHS sites and relevant for high schools everywhere. We applied those principles to two key questions:



¹ The names of students have been changed throughout this volume.

² The New Urban High School project (NUHS) is a joint initiative of the Big Picture Company and the U.S. Department of Education, Office of Vocational and Adult Education, funded under contract # VN96014001, October 1996 – September 1999.

³ Available from Standard Modern Company, (800) 742-4123

- How can educators and community partners help students connect their schoolwork with work in the world?
- How can we extend these practices to all students?

This second volume addresses these questions and adds another, based on our subsequent work in urban and non-urban settings: how can we use the design principles to rethink our structures and our day-to-day practice? In answer, we clarify the design principles and introduce a process by which school teams can create principles-based action plans.

Why Design Principles

We began our third year of NUHS work with specific strategies for helping the teachers and administrators of our sites sharpen their practice. However, we quickly and often found ourselves in intense discussions with staff about goals and principles. In St. Louis we saw teachers struggle to integrate computer-assisted instruction in the morning with project-based learning in the afternoon. What was the purpose of each, and how could they be connected? In Chicago, we heard teachers ask, “What are advising groups for, anyway?” Again and again, questions of *how* were linked to questions of *why*. Our workshops and conversations with teachers always led from daily practice to issues of purpose. And those issues of purpose called forth persistent issues of planning: where to focus, what to do, how to find the time. Without planning, the default option locks into place — and the default option is the conventional high school.

In Seattle, a broad coalition of district administrators, building principals, teachers, and community partners chose to adapt the NUHS design principles as a planning template for district-wide high school reform. As they saw it, the principles offered an approach to planning that links issues of structure, practice, and assessment: how do we position ourselves to do our best work with students? How, in the daily transactions among teachers and students, do we accomplish the vision represented by the principles?

Using this Guide

This is a guide for practitioners and community partners everywhere who find themselves in position, or who want to position themselves to develop new designs for learning. The guide is divided into two sections. In the first section, *Six Principles for High School Design*, we discuss the NUHS principles in detail, offering illustrative vignettes and addressing issues for practice and data collection. Since people may have very different notions of what a design principle like “personalization” means, we elaborate on each principle by listing indicators — the structures and practices that one might find in a school where a given principle is being fully implemented. A



summary of these indicators, with examples from the NUHS sites, is offered in Appendix II.

In the second section, Design Principles Planning, Step-by-Step, we offer a planning process that mirrors our work with the NUHS sites. The first task is to establish common ground around basic issues: What is a significant learning experience? What do we want for our students? From there the process moves to design principles and mission, and then on to strategies, maintaining a focus on underlying principles even while planning day-to-day activities.

Throughout this guide we pose questions for inquiry and suggestions for data collection, on the presumption that a good school not only has good data, but also uses data well. In the face of the tremendous pressure on schools across the nation to produce high standardized test scores, it can be difficult to remember why it is important to collect a broad range of data: to support good practice, sharpen the design process, engender public support, and shift the accountability focus away from narrow measures.

All design processes rest on assumptions about change. Ours are as follows:

- School change is a local matter.
- High school change efforts must proceed with a profound respect for students and an expansive sense of their intellectual capabilities.
- School change efforts must respect and nurture the work of teachers.

Accordingly, we have left plenty of room in these materials for planners to generate principles, practices, standards, and assessments. While we believe that schools ought to observe certain principles, and that the NUHS principles represent a good set, we know how important it is that practitioners own the process and the result. We offer this open-ended process and the NUHS principles in the hope that practitioners and partners in a wide range of schools will find the combination useful in developing their own work. ■

USING DATA WELL

Making Data Your Friend

- Base program decisions on design principles and sound evidence
- Build on data and information you already collect
- Maintain internal responsibility for defining lines of inquiry and indicators of success
- Seek expert help for complex data collection and analysis tasks
- In data analysis account for, but also challenge, limitations in resources and capacity

Data Types

Implementation

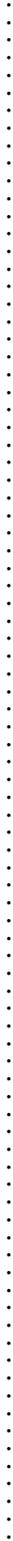
- What structures/practices are in place?
- To what extent? (breadth)
- To what degree? (depth)

Performance

- What do students understand?
- What can students do?

Data Sources and Tools

- Student, parent, and teacher questionnaires
- Program records/database/schedule
- Teacher observations, reports, records
- Student, parent, and teacher focus groups
- Mentor questionnaires and records
- Longitudinal studies
- Curriculum review and accreditation documents
- Student portfolios
- Trends in basic engagement data: attendance and completion rates, course selection, etc.
- Long-term outcomes (college/career entry and success)



Six Principles for High School Design

Six Principles for High School Design

Overview

the six nuhs design principles offer practitioners everywhere a solid footing for the design and implementation of whole-school change efforts. The principles are:

Personalization. Create settings where teachers and students can know each other well.

Adult World Immersion. Situate students directly in the world beyond school.

Intellectual Mission. Articulate a common intellectual mission for all students.

Contexts for Reflection. Provide integrated, reflective contexts for students and teachers to uncover the meaning of their work.

Community Partnership. Involve family and community in program planning, implementation, and evaluation.

Teacher Ownership. Support the teacher as designer, inquirer, and clinician.

Fully implemented, the design principles eliminate the anonymity, isolation, and disengagement that plague many high schools.

The principles are compatible with student performance standards grounded both in state academic standards and in the expectations and realities of the adult world, as expressed by the Secretary's Commission on Achieving Necessary Skills (SCANS) and by Murnane and Levy's *Teaching the New Basic Skills* (1996).

In this section we define each principle, discuss its implications for program structure and instructional practice, offer vignettes that illustrate the principle in action, and suggest ways of using data to inform the design process.

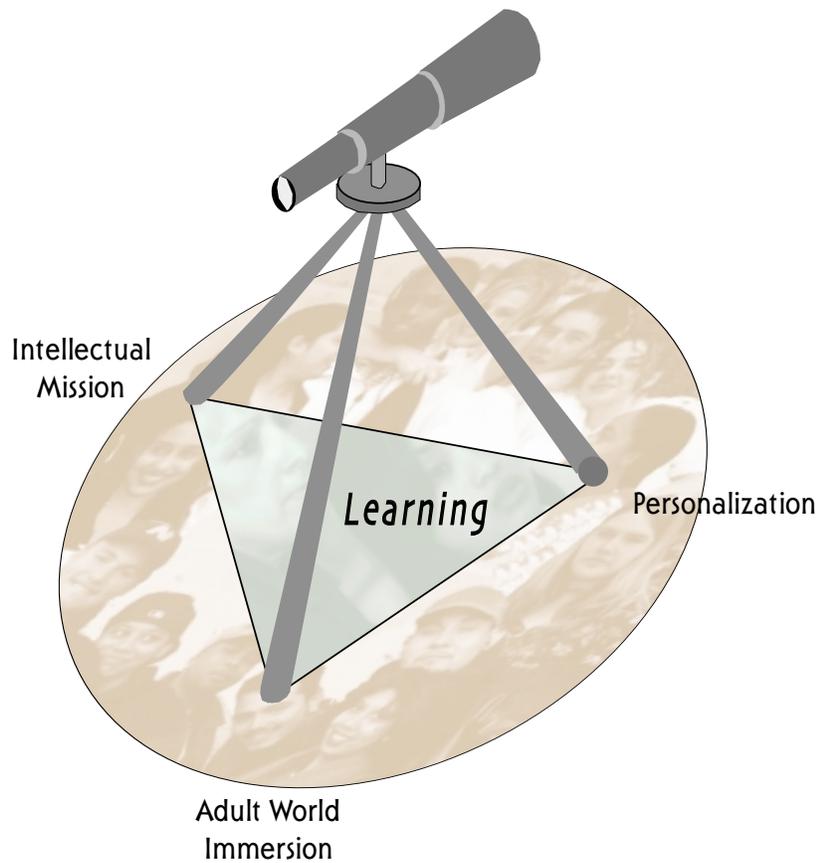


CORE PRINCIPLES

Three of the six principles — personalization, adult world immersion, and intellectual mission — have emerged as core principles for helping students “see their future.” These are the principles most directly related to student learning — and they can be “cross-walked” to each other. How, for example, does the principle of personalization apply to adult world immersion, or to the school’s intellectual mission?

We think of the three core principles as the legs of a tripod: each leg contributes to the overall structure; each derives strength from the others; and the whole is only as strong as the weakest leg.

Seeing the Future



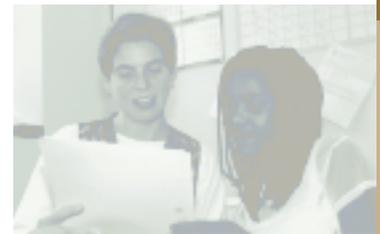
Personalization

Create settings where teachers and students can know each other well.

in a school that observes the principle of personalization, students see themselves as important members of a learning community in which they are known well by a number of adults. They are encouraged to explore their individual interests and passions, and to connect these to their emerging identities as learners, workers, and citizens.

In a personalized school environment, teachers assume new roles that go beyond subject matter instruction to include activities such as advising students and working with families. Teacher time may be allocated differently, too. Personalization requires common planning time so teachers can discuss the needs of individual students. In particular, certain forms of block scheduling permit team teaching and allow teachers to spend more time with fewer students each week.

The structural features above are prominent at Chicago Vocational Career Academy (CVCA), an inner-city high school of more than 2,000 students. Over the past several years, CVCA has divided into eight discrete academies, each offering a coherent, personalized learning environment. Vocational classes are integrated with English, social studies, math, and science classes within these mini-schools. Freshmen are clustered in groups of 100, each with 5 academic teachers — and when the students move to 10th grade, their teachers move with them.



Indicators for Personalization

Here are some of the structures and practices one might see in a school that has implemented the principle of personalization.

- Small learning communities
- Advisory programs for all students
- Personal learning plans
- Student projects that pursue interests and passions
- Adult mentors for all students
- Support services for students with needs

Three Key Indicators Explained

Small learning communities

By small learning communities we mean schools, or schools within schools,

with fewer than 400 students, where teachers have the authority to define the intellectual focus, create integrated curricula, and determine schedules. The smaller units in large schools often take the form of career- or theme-related academies or strands. Although these are autonomous, they connect to each other and the school as a whole through a shared vision and mission. Students learn from interdisciplinary teams of teachers who know each other and their students well.

Advisory programs for all students

Advisories are groups of students (ideally 15 or fewer) that meet at least an hour each week with a teacher/advisor. Through discussion, writing, projects, and other activities, students in advisory groups reflect on their learning goals, needs, and experiences at school and in the world beyond. The advisory group serves a community purpose as well — it is a place where students get to know each other, and where individual needs are connected with the mission of the school.

Personal learning plans

The personal learning plan (PLP) serves as a “road map” to a student’s academic goals, interests, and needs. Although PLPs may list course work, independent or remedial study, work-based learning, and other activities, they should not be confused with course contracts or transcripts. Rather, PLPs begin with the students’ interests and needs. Created by students with the help of teachers, advisors, and parents, PLPs are living documents, revisited and revised through the school year in advisory meetings and parent-mentor conferences.

Design Principles in Practice: Personalization

Personalization in school

On any given day, a glimpse into Tess Stephen’s advisory class at the Chicago Vocational Career Academy (CVCA) reveals a group of young people dedicated to learning and to helping each other. Trust, honesty, cooperation, growth — these are just a few of the words Ms. Stephen uses to describe the interaction among the group of 25 students she has met with every day for two years.

CVCA began offering daily advisory groups for its freshmen and sophomores in 1994. However, not until 1997 did the school decide to keep the same group of students together with the same advisor for two consecutive years. Now finishing her second year with the same advisory group, Ms. Stephen believes this new structure really makes a difference. Students feel trusted and supported by Ms. Stephen and by each other. They keep each other on track with their studies and with their lives outside of school. Although advisory groups only meet for 25 minutes a day, CVCA’s academy structure and block schedule allow the same students to stay in contact all day long.

THINGS TO AVOID

Personalization is *not*:

- Study halls or homerooms in lieu of advisories
- Academies or “houses” with little or no autonomy and lots of cross-registration
- “Small learning communities” that in reality are separate academic or vocational tracks
- Learning plans that ignore the students’ interests and goals, consisting solely of pre-formatted checklists, transcripts, or course requirements

Ms. Stephen usually begins an advisory group meeting with a short “bonding” activity that builds teamwork and cooperation skills. Knowing that personalization is a tall order with a group as large as 25, she has the students break into smaller groups of 3 or 4, chosen randomly to encourage interaction among all students. A bonding activity might ask the members of each group to wrap a gift together with one hand tied behind their backs. Such activities challenge students not only to think of alternate solutions to an ordinary task, but also to work together and develop team skills.

Depending on the day, the rest of the advisory period might include group or individual work on ongoing projects, role-playing activities, reflective writing, or discussions of school and community issues. Students also use this time to reflect on their individual learning plans, assessing their progress and refining their goals. In addition, they work on their portfolios, which require a good deal of reflective, persuasive, narrative, and expository writing. Ms. Stephen prepares an agenda for each day, but defers to the students if they wish to hold a discussion about current events or other pressing issues.

One of Ms. Stephen’s advisees, Roger Sewell, attests to the power of his advisory experience. He mentions the “careers” project in advisory as something that particularly engaged him and lent relevance to his learning. For this project, all students selected a career field to research. Then they made initial phone calls to local vendors, organizations, and companies in that field. Roger did an informational interview with a jeweler, blending his own questions with interview tips and guidelines from *The New Urban High School: A Practitioner’s Guide*. After further research on the jewelry business and how it fits into the larger scheme of retail and trade, Roger wrote up his interview and his findings.

When Roger entered CVCA in the ninth grade, his academic record reflected his lack of enthusiasm for school. But since his first semester at CVCA, Roger’s performance has improved dramatically. He has been making the honor roll, and his test scores have risen two levels in reading and five in mathematics. He and Tess Stephen attribute a share of this progress to Roger’s advisory experience.

The CVCA advising system has had a broader effect, too. The Chicago Board of Education has required all schools to develop advising programs and has developed a basic curriculum to inform other schools about effective advisory activities.

Personalization in the field

Adela is a student at the Metropolitan Regional Career and Technical Center (the Met) in Providence, Rhode Island. Her mentor, Janice, is a nurse at the clinic where Adela did her internship. Recognizing Adela’s impressive talents and reliability early on, Janice entrusted her with a variety of tasks and responsibilities. Adela’s intensive work at the clinic led her to pursue a project around intrauterine growth retardation (IUGR), a medical term used to



denote the condition of a fetus or newborn baby that is very small for its gestational age. A pregnant woman with IUGR must receive frequent testing to monitor her baby's growth.

Adela began researching her project in the library. But when Janice asked a patient with an IUGR pregnancy if Adela could shadow her during her clinic visits, Adela embarked on an unforgettable learning experience. She accompanied the patient to all of her appointments, documenting the days, times, and test results. Over time, the patient and intern formed a close friendship. They shared stories about their lives, including the patient's own struggles to get an education. At the end of her pregnancy, the patient invited Adela to attend the birth of her child.

For her final exhibition, Adela collected statistics comparing normal pregnancies to an IUGR pregnancy, charting and interpreting the data. She also researched and presented information about insurance company policies and coverage of genetic counseling. But even more important than her research were the relationships she formed, and the knowledge she gained because a workplace mentor knew her well and took an interest in providing her with a rich and deep learning experience. ■

 DATA TO COLLECT

**Personalization:
Implementation Data**

- Percentage of students in advisory groups or equivalent
- Average advisory group size
- Percentage of students with personal learning plans
- Percentage of students who have an adult mentor
- Integrity of academies or strands (% of student courses within academy)
- List of support services for students with needs

Performance Data

- Percentage of students who say they feel part of small learning community
- Percentage of students who say school adults know them well
- Percentage of parents who say school adults know their children well

Adult World Immersion

Situate students directly in the world beyond school.

the great power of adult world immersion is that it confronts students with unpredictable situations, new perspectives, and invaluable lessons in dealing with people in the world. Workplaces and other field sites offer a rich context — richer than classrooms, in many instances — for acquiring academic skills and competencies that will serve students well in college or careers.

Of all the design principles, adult world immersion carries the greatest structural implications. Schools need to change the way they schedule student time, organize the curriculum, allocate adult resources, and interact with the community. In particular, teachers need support to guide learning in places other than classrooms, to analyze field sites in terms of their learning potential, and to work with adults outside of the school.

To achieve significant scale, schools must offer a wide range of options, including job shadows, internships, community service, school-based enterprises, field projects, and other experiences beyond the classroom. Districts, too, need to rethink long-established policies and practices, including everything from budget processes to bus schedules to staff development practices.

In implementation, this design principle is closely linked with the core principles of personalization and intellectual mission. While field placements offer a rich context for learning, students need help in “reading” that context, as well as a conceptual framework for capturing the unanticipated stories and lessons that emerge.

Indicators for Adult World Immersion

Here are some of the structures and practices one might see in a school that situates all its students in the adult world.

- Internships, field studies, and other community-based learning
- Student projects that contribute to the workplace or community
- Analysis of the field placement as a learning site
- One-on-one relationships with adults in field placements
- Career exploration embedded in the curriculum and field experiences
- Flexible block schedule
- Hands-on experience with technology



THINGS TO AVOID

Adult World Immersion is *not*:

- Programs that only offer internships to the “non-college bound”
- Site supervisors who only monitor attendance and punctuality
- Internships that isolate students from adult colleagues
- Busy work, or work with no academic connection
- Pro forma student projects that add no value to the workplace or community

Three Key Indicators Explained

Internships, field studies, and other community-based learning

Internships and other field projects provide authentic contexts where students can learn problem-solving and other higher-order thinking skills. These students also get a chance to explore their career interests — and to see how adults put together careers. Another, less appreciated benefit is the mentoring relationships students form with adults in the world beyond school.

In effective adult-world-immersion programs, the school designates a staff member to manage logistics and coordinate relationships with community partners. Throughout the school year, teachers and employers/mentors meet regularly to discuss the students’ learning goals and work. Teachers spend time observing students in the field and analyzing placement sites for their learning potential.

Student projects that contribute to the workplace or community

Students engage in field work or develop long-term projects that incorporate academic content (e.g., math, social studies, science) and culminate in an exhibition and final assessment. The projects are meaningful to the student, valuable to the employer, and grounded in real-world problems.

One-on-one relationships with adults in field placements

Students benefit greatly when they form a mutually trusting and respectful relationship with an adult in their workplace or community-service site. The adult provides support and guidance, taking an active interest in the student’s learning in and out of school. One-on-one relationships personalize the commitment students make to their academic, onsite, and project work. Graduates of internship programs often refer to the inspiration of a mentor as the key to their later success.

Design Principles in Practice: Adult World Immersion

Applying workplace knowledge

In July 1996, having just completed his sophomore year in Turner Tech’s Academy of Finance,⁴ Jaime Giron began a summer internship at Greater Miami Neighborhoods, Inc., a community development corporation (CDC) that focuses primarily on affordable housing. For this internship, he earned a stipend equivalent to the minimum wage. As a Finance Academy student earning at least a 3.0 average each semester with a grade of A or B in the academy class, Jaime was also eligible for the Futures 500 Scholarship Incentive

⁴The Academy of Finance at William H. Turner Technical Arts High School and the Futures 500 Scholarship Incentive Program within it are co-sponsored by the National Academy Foundation (NAF) and the Fannie Mae Foundation.

Program. The program provides \$500 per semester for a maximum of \$4000 plus interest upon graduation. This money must be used for post-secondary education at a two-year or four-year college or not-for-profit technical school.

Impressed by his job performance, Jaime’s supervisors asked him to return the following summer, and then for his senior year on a work/study internship program. Beyond providing him with on-the-job skills, the internship enhanced Jaime’s academic work in several ways, most specifically in accounting, computer applications, and written and verbal communication skills. Overall, the experience boosted his self-esteem and self-assurance.

Turner Tech offers several types of student-run activities for academic credit to encourage deeper and more rigorous learning experiences connected to internships. These include literary seminars, historic re-enactments, issues forums, and simulations. Jaime became so passionate about affordable housing issues that, along with some of his fellow Turner Tech students, he organized and conducted an issues forum on housing discrimination. Using the networking skills he acquired during his internship, Jaime helped his project team recruit representatives from numerous housing and government agencies, CDCs, and political offices to participate in the town-hall style forum.

During this time, Jaime lived in a cramped rental apartment with his younger sister and his mother, a single immigrant parent. As he learned about affordable housing opportunities, Jaime began to realize that his mother's belief that she would never own a home was unfounded. Greater Miami Neighborhoods, Inc. assisted the family in obtaining affordable housing and a low interest mortgage. Jaime saved his earnings and was able to provide his mother with the necessary cash down payment for the purchase of a home.

Jaime is now majoring in management information systems at Florida International University on scholarship and fully-paid tuition through the Florida Student Assistance Grant. He is saving his Futures 500 money for graduate school. He has maintained a 3.3 GPA and has earned 33 hours of credit so far, including 6 hours earned in dual enrollment courses offered through Turner’s Academy of Finance. To help support his education, Jaime is currently working at the U.S. Division of Probation as a computer technician, earning \$10.63 per hour plus full benefits. He obtained that job through the accountant at the Greater Miami Neighborhoods, Inc. — another instance of adult connections paying off.

Getting down to business

Alex Depina, a junior at the Met, recently finished his third month in an internship at POAM Graphics, a chain of three retail stores in the greater Providence area. Alex’s mentor at POAM is Paris Fisher, the owner. Paris and his associates design clothing items based on what they see as “hot” on the streets. The Met placed Alex at POAM because he had expressed an interest in designing and marketing his own line of clothing. Alex was especially fasci-



 DATA TO COLLECT

**Adult World Immersion:
Implementation Data**

- Percentage of students in internships or other community-based learning outside the school
- Average length of internships
- Percentage of students in job shadows
- Percentage of students in school-based enterprises
- Percentage of interns who have worksite mentors
- Percentage of students receiving hands-on experience with technology

Performance Data

- Percentage of interns rated satisfactory or higher from their mentors/supervisors
- Percentage of students showing gains in technical and/or academic skills
- Percentage of students showing satisfactory or better project management skills
- Student attendance and retention trends at worksites and at school
- Percentage of students completing projects related to worksite learning
- Evidence that students understand organizational structure and mission of worksites

...nated by FUBU (For You By You), a successful line of unisex casual clothing for urban youth.

... Paris made sure to expose Alex to the ins and outs of the retail industry while encouraging him to design his own label. As a result, Alex gained a deep understanding of the rules of mark-up, accounting methods, and business management.

... Alex chose to do a project that would assist the company in franchising their stores. Paris asked him to figure out a way to demonstrate to prospective franchise owners how they could pay off loans while still making a profit. To get him started, Paris gave Alex access to all of the company’s old budgets and profit & loss statements. He then asked him to make projections about the business, breaking these down into detailed areas such as inventory, wages, benefits, and overhead.

... As the project progressed, Alex’s advisor at the Met, Chris Hempel, witnessed a remarkable change. According to Chris, Alex’s prior work at the Met lacked the substance, thoughtfulness, and rigor Alex was capable of producing. As a freshman, for example, he hated math and tried to avoid it as much as possible. Now he understands it as being less about rules and laws, and more about using numbers for a purpose — to think quantitatively, or to analyze trends. In conclusion, Alex sees math as a means to an end and willingly takes on its challenges. He knows math is not just about creating numbers, but about using them and justifying them — especially when his own business is on the line.

... Alex intends to continue working as an intern with Paris Fisher next year. If all goes well, his clothing designs will be sold at POAM next to FUBU and other famous brands. Meanwhile, Alex has been busy interviewing Met students who want to be involved in his business and who, he says, have a “sense of style.” ■

Intellectual Mission

Articulate a common intellectual mission for all students.

a **coherent intellectual mission** allows schools to set high standards for student work, look at that work closely and seriously, and negotiate new assessments and pathways for entry into post-secondary education. The mission clearly expresses what students need to understand and be able to do as a result of their learning. It cuts across disciplines and informs student learning across the curriculum, eliminating distinctions between “college prep” and “vocational” education. Students should be able to relate all of their work inside and out of school to the common core goals.

At best, a school’s intellectual mission is developed internally by its faculty, working in consultation with parents, students, and other members of the community. Faculty assess the mission regularly in the light of student work and district standards.

What is most striking about a school with a coherent intellectual mission is that adults and students tend to use the same language in talking about the school. The mission is accessible to all, including bilingual and special needs students. It is also assessable — students understand they must demonstrate the skills and understandings that the mission calls for.



Indicators for Intellectual Mission

Here are some of the structures and practices one might see in a school that has articulated a clear intellectual mission.

- Common core goals across the curriculum
- Curriculum integration across vocational and academic areas
- Cross-cutting standards developed and assessed internally
- Assessment focused on what students understand and can do
- Field experiences that connect with academics, and vice-versa
- Program standards that allow all students to qualify for four-year college

Three Key Indicators Explained

Common core goals across the curriculum

Common core goals are the bedrock of curricular coherence. All the high school curriculum areas — math, the sciences, technical studies, the humanities, and the arts — place a high value on close observation, critical thinking, problem-solving, communication skills, and learning-to-learn skills. Too

COMMON CORE GOALS

Below are examples of common core goals at two NUHS sites. These goals cut across disciplines, drive the curriculum, and serve as the standards for assessing student work.

The Six Hoover Learner Outcomes Hoover High School, San Diego, CA

What all students should know and be able to do upon graduation:

- 1. Demonstrate habits of inquiry
2. Experience high technology
3. Collect, analyze, and organize resources and information
4. Communicate ideas and information
5. Work effectively with others
6. Organize personal resources, plan goals for the future, and show a commitment to lifelong learning

The Five Habits of Mind Central Park East Secondary School, New York, NY

Connection: How is it connected to other things?

Perspective: What is the viewpoint?

Evidence: How do we know what we know?

Speculation: How else may it be considered?

Significance: What difference does it make?

(These habits share the same acronym as the name of the school: CPSSS)

often, however, departmental curriculum goals emphasize subject matter in ways that fragment the curriculum. The overall aim should be to articulate goals in a way that give students and teachers a common language that cuts across the curriculum areas. When this language becomes a part of the daily conversations of teachers, students are more likely to experience their course of study as a coherent whole, rather than a set of unrelated "subjects."

Curriculum integration across vocational and academic subject areas

Integrated curriculum links academic and technical instruction and content around a common theme or project. But it also implies a broader horizontal and vertical integration across subjects and grades. In any case, there are structural implications: integrated curriculum requires that teachers plan together in interdisciplinary teams. Without planning, there can be no integration. (For a guide to creating integrated curriculum units, see The New Urban High School: A Practitioner's Guide.)

Assessment focused on what students understand and can do

The rubrics and criteria for assessment of student work emanate from the school's intellectual mission and focus on what students understand and can do. Students articulate their learning in a variety of ways, including written reflections, oral presentations, and project exhibitions. Teachers meet regularly to review student work together. Students demonstrate not only knowledge of subject matter, but also mastery of the school's core learning goals. Student graduation requirements include portfolio exhibitions, senior projects, and senior internships.

THINGS TO AVOID

Intellectual Mission is not:

- Core goals for which no one is accountable
• Educational jargon that students never use or hear
• Planning curriculum without consulting core goals
• Exclusive reliance on end-of-term tests, as opposed to ongoing assessment
• Assessment by standardized tests only

Design Principles in Practice: Intellectual Mission

Learning to “be smart”

“Between my internship at Harlem Textile Works, my academic course work, preparing my graduation portfolios, and completing my college and financial aid applications, my schedule is so full that I need a day planner just to keep track of it all!”

— Larissa Woods, CPESS student

Larissa voices a concern that many of her fellow seniors share at Central Park East Secondary School (CPESS). But rather than showing burnout and fatigue, she delivers her comment with a mixture of exhilaration and pride. Clearly, she is excited about what she is doing. Asked why she chose to stay at the school, knowing full well the demands that the Senior Institute would place on her, Larissa responds that at CPESS the teachers have given her the chance to “be smart.”

That’s exactly what Larissa’s teachers hoped to achieve. The CPESS faculty sees the intellectual mission of the school as simple: to teach students to “use their minds well.” To this end, when the school opened in 1985, the faculty articulated five “habits of mind” (connection, perspective, evidence, speculation, and significance) through which they hoped to teach students how to ask important questions, provide them with a sense of connection across disciplines, and inspire them to become lifelong learners.

Larissa now finds herself putting into practice all she has learned at CPESS. During her junior and senior years, she has been responsible for developing graduation portfolios in 14 different areas, including science/technology, literature, history, ethics and social issues, mass media, and community service. For the four core academic subject areas, along with three others of her choice, she must prepare “major portfolios.” These she will present to a graduation panel consisting of her advisor, one other CPESS staff member, a CPESS student, and an adult of her choice from outside of the school (Larissa has invited both her mother and internship supervisor to sit on the panel). In her portfolios exhibitions she must demonstrate mastery of the habits of mind.

By embedding these “habits” at the heart of their curriculum, the CPESS faculty sought to create a common language that could be used by teachers and students alike to discuss their work and ideas, serve as the basis for student assessment, and set standards for student performance. Their approach has proven tremendously successful. Over 90 percent of CPESS students go on to complete their portfolio exhibitions and graduate, with over 90 percent of those students going on to college and getting two- or four-year degrees. CPESS teachers attribute this dramatic result to the fact that the students have developed independent learning and critical thinking skills.

Larissa plans to attend the State University of New York and major in

DATA TO COLLECT

Intellectual Mission: Implementation Data

- Frequency of teacher discussions about student work
- Percentage of students who visit college campuses
- Percentage of students preparing portfolios
- Ratio of integrated to non-integrated classes

Performance Data

- Percentage of students receiving satisfactory or higher rating on portfolios
- Percentage of students graduating by portfolio
- Evidence that students understand the school’s intellectual mission
- Evidence that students relate day-to-day tasks to the intellectual mission

: graphic arts. When she thinks about the hard work she has been doing at
: CPESS, she is confident it will pay off when she makes the transition into
: college next year. ■



Contexts for Reflection

Provide integrated, reflective contexts for students and teachers to uncover the meaning of their work.

it is not enough merely to place students in the field. Schools should also provide contexts such as advisory groups, internship seminars, and integrated academic courses where students can reflect on the meaning of their work, linking their own experience to academic and adult-world standards. In the Cambridge-Lesley Careers in Education Program in Cambridge, Massachusetts, for example, students meet three mornings each week to describe and analyze their field site experiences, develop group and individual projects, prepare portfolios, and synthesize their work in public exhibitions. The seminar teachers — one from the Cambridge high school, one from Lesley College — support student reflection by providing guidance and regular feedback as needed. Contexts for reflection of this kind integrate and support the three core design principles of personalization, adult world immersion, and intellectual mission.



Indicators for Contexts for Reflection

Here are some of the structures and practices one might see in a school that establishes contexts for reflection.

- Reflection as an explicit academic routine
- Internship seminars and advisory groups
- Regular exhibitions of student work
- Internship and other academic journals
- Student and teacher portfolios

Three Key Indicators Explained

Reflection as an explicit academic routine

This indicator refers to the daily incorporation of reflective activities in both school-based and community-based learning. Activities such as journal exercises, autobiographical writing, work logs, and project reflections are woven into the fabric of academic, technical, and integrated courses. For example, in the Health & Human Services strand at Hoover High School in San Diego, humanities students record worksite observations and interviews in their journals. Later, they use these as a basis for a major career exploration paper.

THINGS TO AVOID

- Contexts for Reflection are *not*:
- Prescriptive “work readiness” classes
 - Journals for the sake of “journaling”
 - Advisory groups that meet for less than an hour per week
 - “Show and tell” exhibitions without an opportunity to share reflections

Internship seminars and advisory groups

Students in internships and other field work can benefit from a setting where they can share experiences, discuss site problems, and reflect on their learning. In internship seminars, teachers work with site mentors and other community representatives to design curriculum and facilitate discussions. As a result, students are supported to do their best thinking, ask questions about academic or worksite issues, and complete projects that connect work experience with rigorous academics.

Regular exhibitions of student work

Exhibitions give students a chance to present their work and learning to panels or groups of teachers, peers, families, and other adults in the community. Students relate their work to the school’s intellectual mission, reflect on what they have learned about specific topics and about themselves, and answer questions posed to them by the audience. Following rubrics that reflect the school’s standards, the panels assess students’ progress toward the school’s common core goals.

Design Principles in Practice: Contexts for Reflection

Making connections

As a sophomore at Central Park East Secondary School (CPESS), Tisha Norris fulfilled her community service requirement by working for the Domestic Violence Police Unit in East Harlem. Tisha spent one-half day per week at the unit, assisting with clerical duties and observing the services offered to the women and children who visited.

Witnessing the pain and fear of these families, Tisha felt deeply moved. She kept a journal to record her observations and thoughts about the experience. During advisory meetings back at school, Tisha’s group shared excerpts from their journals and discussed themes and issues that arose at their work-sites. Once or twice a month, Tisha’s advisor, Eduardo, assigned writing activities that encouraged his students to make connections between what they were learning on the job and what they were learning in school — particularly through the lens provided by the five CPESS “habits of mind:” connections, perspective, evidence, speculation, and significance.

For her community-service portfolio exhibition, Tisha researched and wrote about the causes of domestic violence, the care of victims, and possible means of prevention. Culling from her many journal entries, she described the attributes of successful programs that offer safe, anonymous shelter and counseling to the victims of abuse. She also outlined her ideas for a support group where young people could discuss both how to nurture respect between people and what to do if they are being abused.

Tisha’s advisory group helped her get the most out her community-service placement. Until 1998, however, CPESS did not have the contexts and

guidelines to promote this depth of reflection. Although CPESS had managed to take its community-service program to scale — with all 240 of their students in grades 8–10 spending a half-day per week at a community-service site — the responsibility for setting up and monitoring the experience rested solely on the shoulders of Community Service and Internship Coordinator Anne Purdy and her assistant, Denise Reagans. Overburdened by logistical tasks, Anne and Denise had little time to help students strengthen the connections between their service-learning experiences, their classes, and the school's intellectual mission. Anne suggested that teacher/advisors try doing this in their advisory groups. The teacher/advisors were interested, but said they needed more direction.

In the summer of 1997, Anne Purdy worked with NUHS staff to write an advisory curriculum that would encourage students to reflect on their workplace experiences. Division II (ninth and tenth grade) advisors agreed to attend weekly lunch meetings to discuss the needs and progress of individual students and to support each other in the curriculum's implementation. In the fall of 1998, the advisories piloted the curriculum. Students had opportunities to write up and discuss their observations of their workplaces, to develop projects, and to reflect on their emerging identities as workers and learners. Throughout, they were asked to make connections between their experiences and the five habits of mind.

The results? So far, the staff have noticed a remarkable difference in the quality and depth of students' written reflections and final projects. Teachers attribute these improvements to having made the advisory groups a rich context for student reflection and discussion, as well as to the direct and immediate feedback they have given to students about their journal entries. Students wrote extensively about the value of the work they did at their placements, the learning processes they went through there, and the ways in which the organizations they worked with were successful or could improve. According to Anne Purdy, there has never been a smoother or more successful year with regard to student attendance, productivity, and job satisfaction. Site supervisors also report improved performance and good relationships with their students. ■

DATA TO COLLECT

Contexts for Reflection: Implementation Data

- Percentage of students in reflective contexts (seminars, advisories, focus groups, etc.)
- Percentage of students keeping internship journals
- Percentage of students keeping portfolios
- Percentage of teachers keeping portfolios
- Percentage of students completing exhibitions
- Number of exhibitions per student per year — range, mean

Performance Data

- Quality indicators for journals: length, multiple uses
- Percentage of students doing projects that contribute to workplace or community
- Evidence of peer support in dealing with workplace issues, etc.
- Evidence that students can explain how their field experiences relate to the school's intellectual mission

Community Partnership

Involve family and community in program planning, implementation, and evaluation.



• a high school that observes this principle embeds itself deeply in its overlapping communities of families, neighbors, and local organizations. Staff work with students, parents, and community partners to design, develop, and evaluate the school program. The school builds and sustains effective partnerships with employers, community agencies, and post-secondary institutions that provide internships and other opportunities for students.

• Families participate in learning plan teams and help assess student work and exhibitions. Mentors and other business/community partners also contribute to learning plans and work with teachers to plan and facilitate internship seminars and other learning experiences. Students get involved in the community not only as users of resources, but also as contributors.

• The school engages the public in a variety of ways: through local exhibitions of student work, through parent committees and newsletters, through family events that celebrate the school, and by inviting parents to serve as worksite mentors or tutors. Moreover, it involves students in projects that address community needs and make use of community resources.

Indicators for Community Partnership

• Here are some structures and practices one might find in a school that practices community partnership.

- Well-managed partnerships with community organizations
- Family as partner in developing learning plans and viewing student work
- Use of community resources for learning
- Curriculum that explores and addresses community needs
- Post-secondary articulation agreements, e.g., dual credit, advanced standing
- Public engagement activities

Three Key Indicators Explained

Well-managed partnerships with community organizations

• Effective partnerships require a full-time, internal staff person who helps build and sustain relationships with local employers, community and government agencies, industry associations, labor unions, and post-secondary institutions.

• The program involves all stakeholders early, secures full commitment

from its partners, and sets defined goals and a clear vision for meeting the needs of community youth. Team planning and teaching occur across institutions; i.e., curriculum and classes are planned and taught jointly by teachers, business partners, and mentors. Time is built into the daily schedule to allow school faculty to meet with community partners.

Family as partner in developing learning plans and viewing student work

Parents or guardians serve as essential members of the student’s learning plan team. Families meet with the teacher, student, and other team members several times during the year to develop and revise the personal learning plan. Families also participate actively in the assessment of their children’s portfolios and exhibitions. The school seeks and listens attentively to family input about program design and structure.

Use of community resources for learning

Surrounding communities, especially in urban areas, offer rich resources for student learning. Through art centers, local newspapers, museums, and other community-based organizations, students can develop or become involved in projects that benefit the community while enhancing their academic learning.

Design Principles in Practice: Community Partnership

Education is everybody’s business

At most schools, family and community partnerships occur as separate initiatives. But the Metropolitan Regional Career and Technical Center (the Met) takes a unique approach to partnership, requiring all families and community mentors to commit to working together as a team with the students and Met advisors. Claudia, a Met sophomore whose family comes from Costa Rica, has benefited greatly from this structured teamwork.

This past year, Claudia interned as a bilingual teacher’s assistant in an elementary school. Almost immediately, she developed a close relationship with her mentor, Dora, who was a friend of Claudia’s older sister. Claudia excelled in her internship, taking on more and more responsibilities with verve and thoughtfulness. Dora noticed, however, that Claudia struggled with her school work outside her internship. Too often, Claudia failed to complete her assignments and projects on time.

Through her friendship with Claudia’s sister, Dora had become acquainted with Claudia’s mother, and had learned that she held very high expectations of her children. Concerned that Claudia’s academic performance would disappoint her mother, Dora called the mother to reassure her of her daughter’s excellent progress in the internship, and to discuss ways to encourage Claudia in her academic work. Dora also spoke frequently to Amy Bayer, Claudia’s advisor at the Met, to explore ways to help Claudia understand the connection between her academic work and her internship.

THINGS TO AVOID

- Community Partnership is *not*:
- Business sponsorships in name or funds only
 - Parent-teacher conferences that focus exclusively on discipline problems and grades
 - Annual school fairs or career days in lieu of exhibitions and mentoring
 - AP classes for college credit in lieu of opportunities to take actual college classes

 DATA TO COLLECT

Community Partnership: Implementation Data

- Number and names of business/community partners (trends)
- Percentage of parents/families involved in learning plan teams
- Percentage of mentors involved in learning plan teams
- Percentage of classes planned and taught by school/community teams
- Percentage of parents/mentors attending exhibitions
- Average number of visits to the school per family

Performance Data

- Community partners retention rate
- Percentage of parents who strongly agree that they feel welcome at their child's school
- Percentage of parents who strongly agree that the teachers care about their child
- Percentage of students who say they have made a contribution to the community
- Percentage of students who say they have used community resources to further their learning

Because Amy does not speak Spanish and Claudia's mother does not speak English, Dora served as a vital link between school and home. And because advisor, mentor, and parent had all worked closely with Claudia on her personal learning plan, they could communicate easily about whether Claudia was meeting her learning goals. After a short time, Claudia began to feel both accountable to — and attended to — by all sides. She has been steadily increasing the intensity of her academic work, with her mother, mentor, and advisor working together to support her.

Claudia's story is not unique at the Met. Rather, it bespeaks an underlying structure wherein parents and mentors work with the advisor and student to help develop, assess, and follow-up on the student's individual learning plan. Advisors keep in touch with mentors and parents by phone or by weekly reports so everyone is informed about whether the students are meeting their goals. Ideally, the mentor and parents meet regularly with the advisor and student to look at the learning plan. In reality, however, differing schedules make it difficult to reach this ideal. That is why the Met makes sure to keep several lines of communication open, allowing all partners to stay involved.

The Met has also developed strategies and materials that orient mentors and parents to the philosophy and mission of the school, helping them more deeply understand the importance of their role. With leadership and support from full-time Internship Coordinator Elaine Hackney, the Met makes sure to recruit a committed, diverse group of mentors from the community who can offer internships related to the personal interests of Met students.

At the end of an internship, the family, mentor, and advisor come together to serve on an assessment panel for the student's final exhibition. According to Amy, having the family and the mentor directly involved makes a student's exhibition the "ultimate form of assessment — the moment where all the work culminates. The parents' input and feedback are essential, because they know their child better than anyone else and know when the student has grown and worked their hardest. Moreover, parents need to see the work their child has accomplished, and to see how well the student can articulate what they have learned with the mentor." ■

Teacher Ownership

Support the teacher as designer, inquirer, and clinician.

if high school is to be a good learning place for students, it must be the same for teachers, respecting them as professionals, valuing their expertise, and providing them with frequent training in new concepts, technologies, and skills. Teachers assume ownership when they take on the roles of school leaders, designers, and curriculum developers. To do this, they need open and unfettered support from building and district administrators. Working in design teams that cut across academic disciplines and meet during the school day, teachers develop the capacity to create integrated, student-centered curriculum. A flexible school schedule accommodates team teaching, common planning time, project-based learning, work-based learning, and regular interaction with families, mentors, and community partners beyond the school walls.



Indicators for Teacher Ownership

Here are some structures and practices one might see in a school that fosters teacher ownership.

- Common planning time for teacher teams
- Teachers in leadership roles
- Support and resources for teachers' learning
- Training for effective small group process

Three Key Indicators Explained

Common planning time for teacher teams

Interdisciplinary teams of teachers meet for at least one hour per week during school hours to develop integrated curriculum, receive constructive feedback on their work, and assess student work. These teacher teams develop and use effective small group processes for building meetings around specific, achievable goals.

Teachers in leadership roles

Teacher leaders play an essential role in many school reform efforts. For example, Chicago Vocational Career Academy has eliminated department chairs to facilitate planning of curriculum by interdisciplinary teams of teachers within each mini-school. Both vocational teachers and academic teachers

THINGS TO AVOID

Teacher Ownership is *not*:

- Department-only meetings in lieu of common planning time with teachers from different disciplines
- Faculty meetings driven exclusively by administrative issues
- Planning teams that can't schedule to meet during the school day

serve as academy team leaders. Many of the mini-schools elect their own leaders, set their own direction, and develop their own schedule. In Providence, the Met has taken the notion a step further by developing an Aspiring Principals Institute, where its own teachers and others receive training to take leadership roles in schools.

Support and resources for teachers' learning

Beyond training in new concepts, technologies, and skills, teachers need ample opportunities to visit students at worksites, do mock internships, visit other schools, and attend extended professional development workshops. They also need reliable access to telephones, computers, and the Internet.

Design Principles in Practice: Teacher Ownership

Teacher ownership and administrative support

William H. Turner Technical Arts High School in Miami opened its doors in September 1993. In the preceding summer, the first principal selected a leadership team of teachers to design the program. The result was not only a life-changing program for students, but a school characterized by teacher ownership and commitment. Turner teachers continue to assume the major responsibility for curriculum development, meeting regularly in academy teams to plan integrated curriculum.

In the sixth year of the school, when a new curriculum administrator proposed a vehicle for advanced academics for the school's students who opted for an extra challenge, the staff responded vigorously. A pull-out honors program would create an academic track, which these original teacher-designers had worked hard to avoid. The curriculum administrator agreed but contended that advanced academics would introduce an element of challenge and rigor that was then lacking. The teachers responded that such a program would separate students into two groups — one group that would experience challenging curriculum, and one that would experience diminished expectations.

The eventual solution reconciled two values: setting high standards and challenging all students. In the end, the curriculum administrator and the teachers together decided to institute "honors by exhibition," on the presumption that honors is something you earn, not something you become as a result of a course placement. Honors options were made available to all students in academic classes, academy by academy, so any student in a given class might vie for honors. ■

DATA TO COLLECT

Teacher Ownership: Implementation Data

- Number and percentage of teachers in interdisciplinary planning teams
- Hours of common planning time per week for teacher teams
- Academy or strand leaders in place
- Number of teachers in peer learning or study groups

Performance Data

- Teacher turnover rate
- Teacher certifications
- Number and percentage of teachers holding advanced degrees
- Number of teachers seeking/obtaining National Board certification
- Number of integrated curriculum units developed

Design Principles Planning,
Step-by-Step

Design Principles Planning, Step-by-Step

Overview

alice: *Would you tell me, please, which way I ought to go from here?*

cat: *That depends a good deal on where you want to get to.*

alice: *I don't much care where.*

cat: *Then it doesn't matter which way you go.*

—lewis carroll, *Alice's Adventures in Wonderland*

this section presents a framework and process for linking design principles to structure, practice, and assessment. The aim is to maintain a dual focus on long-term goals and next steps: “Where do we want to get to?” and “What do we do Monday morning?”

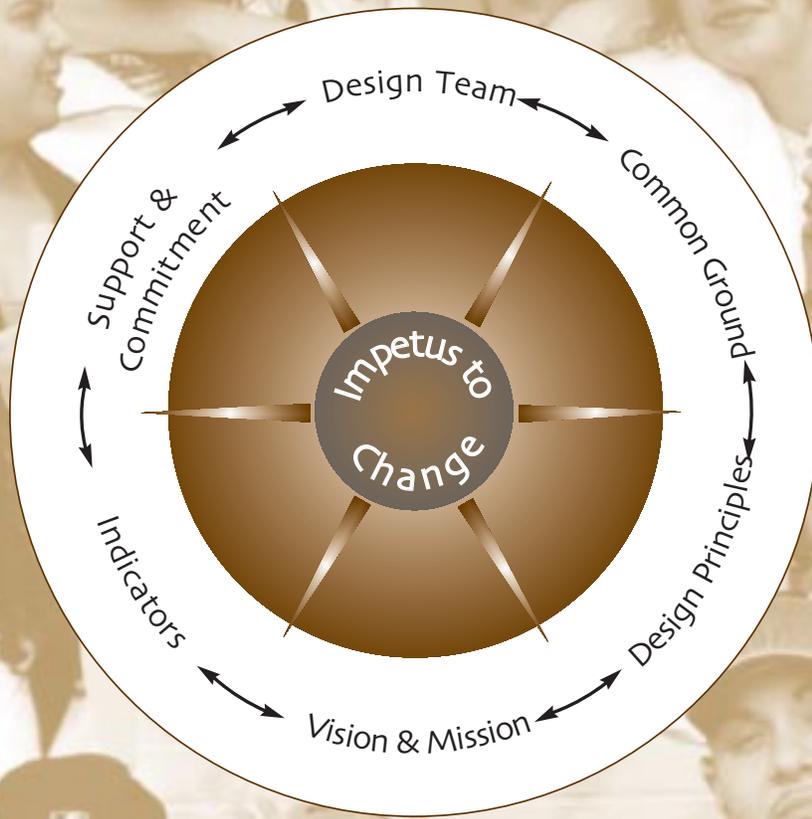
There is no single best model for high school change, partly because local history and conditions vary. However, any successful planning process needs to address the issues of preparation, purpose, and strategy discussed here.

Using the Handouts

Much of this section consists of charts and other tools intended to guide and record the planning process. These can be photocopied and handed out to team members for individual use, or replicated on large sheets of paper and filled out collectively. For most of the charts, we provide completed samples, adapted from the work of the NUHS sites. ■







Creating a Vision

Creating a Vision

Support and Commitment

Many successful practitioners observe the adage, “It is better to ask for forgiveness than permission.” This may serve them well on a day-to-day basis, but it does not work for long-range planning. Comprehensive school change requires support and leadership from principals, district administrators, teaching staff, and members of the community.

Administrators can best lead the planning process by focusing on the goal of improved learning for all students and by demonstrating a willingness to make fiscal and personnel decisions accordingly. From the beginning, planners need to keep the entire staff informed and involved in the design process. No reform effort, no matter how sensible, will result in significant change if the most important implementers feel disconnected or excluded.

The Design Team

One key to building the support and commitment of the school faculty is to recruit a broad-based group of 10 to 12 staff who will provide a diversity of viewpoints and whom the entire faculty can trust to develop an effective plan. Members will want to reach agreement on meeting locations and times, the number of meetings, the anticipated outcomes, and expected milestones and deadlines. Appointing a facilitator will help keep meetings focused and efficient. The facilitator should honor the time frame of each meeting, ensure that everyone gets a chance to speak, and keep an eye on deadlines.

Common Ground

The activities in Figures 1–3 are intended to help the design team uncover their shared values about learning and their aspirations for students. These values and aspirations are the basis for all later planning, as well as for efforts to build a broad base of support.

Reflect on significant learning (Figure 1)

A good way to begin identifying common ground is to tell stories of significant learning experiences during your own high school days, in and out of school.



CONSENSUS

Consensus does not mean 100% agreement on all decisions. Rather, it means that no decision is final until all members of a group agree that they can live with it and support it. Achieving consensus takes time, trust, and a willingness to compromise, with each team member getting an opportunity to influence the thinking of the group.

List elements of significant learning (Figure 2)

Drawing from your accounts of significant learning experiences, compile a list of the elements of significant learning. Then, as a group, choose the five most salient elements. See Figure 2a for a sample list.

Share aspirations for students (Figure 3)

Other discussions, too, can lead to the discovery of common ground. Share your responses to questions such as “What do we want graduates of our school to understand and be able to do?” As you discuss these aspirations, a common vision begins to emerge. See Figure 3a for a sample.



Principles, Vision, and Mission

Having established a set of shared values and aspirations, the design team may turn to the task of articulating a set of design principles, a vision, and a mission for the school. The design principles in particular serve as a solid basis for comprehensive planning and day-to-day decision making.

Generate design principles (Figure 4)

Looking at your shared values and aspirations for students, consider the following questions:

- What would be the underlying design principles of a setting where significant learning was going on, and where students were gaining the intended understandings and competencies?
- Imagine the school ten years from now. What does it look like? What are its underlying principles, and why would a student want to attend?

In Figure 4a and in subsequent charts, we offer the design principles that have emerged in our work with exemplary sites across the nation. For a full discussion of these principles, see the first part of this guide: Six Principles for High School Design. You may adapt these principles to your own situation, or develop different principles.

Compose a vision statement (Figure 5)

As a group, prepare a vision statement that expresses your shared values and design principles. Your vision represents not a prediction, but rather a belief that individuals acting together can shape the future. The vision should be compelling, bold, and understandable to parents and students. It answers the question “Where are we headed?”

For example, the vision for High Tech High, a new school to open in San Diego, California in September 2000, is “to prepare graduates for rewarding lives in the technological society of the 21st century by providing an education that is rigorous, engaging, and relevant to the real world.”

Craft a mission statement (Figure 6)

If vision addresses the question of *what*, then mission addresses the question of *how* the vision will be achieved. An effective mission statement is short enough for easy recall and specific enough to inform good decisions, but broad enough to allow for flexibility in implementation.

For example, the mission of High Tech High is “to provide students with a blend of strong academic and specific workplace competencies necessary for future success in high-tech careers, emphasizing literacy, numeracy, and scientific and technical proficiencies. This will be accomplished through a blend of interdisciplinary, real-world, and project-based learning with rigorous academic expectations.”

As time passes and new staff join the planning process, the vision and mission will evolve. This is to be expected. Building a truly shared vision can take years of working together.

Develop indicators (Figure 7)

What do the design principles imply for school structures and practices? Imagine the characteristics of a school that observes each of the design principles. These are the features or “indicators” that provide concrete illustrations of the design principles in action. See Figure 7a for a sample set of indicators for the principle of personalization. ■



VISION, MISSION, AND SLOGANS

Many schools have created catchy slogans to generate enthusiasm and attract public attention. Practitioners should be wary, however, of slogans that water down the vision. One school used the slogan, “Whatever It Takes,” as a way to remind faculty and students of the multiple avenues toward academic success. Although this slogan helped boost student confidence, it failed to reflect the school’s mission to provide a rigorous education for all students through access to technology and internships. The Met, in Providence, RI, uses a slogan which accurately denotes its personalized approach to education: “One Student at a Time.”

Creating a Vision: Handouts

**Common Ground:
Reflections on Significant Learning**

This is a one-hour reflection and discussion exercise.

Journal Warm-Up (10 minutes)
Write a brief journal entry describing two significant learning experiences from your high school days: one in school, and one outside school.

Discuss (30 minutes)

- Break into groups of four to six persons.
- Introduce yourselves briefly, as appropriate.
- Share your significant learning experiences with the group.

Group tasks during each description, listen for attributes of each learning experience.

- Who was there?
- When did the experience take place?
- What made these experiences significant?

Group questions, after everyone has shared:

- What characterized the learning experiences in school?
- Out of school?
- Are there any important differences?
- What can we say about the elements of a significant learning experience?
- What are the implications for our planning?

Report (20 minutes)
Each group reports its findings.

**1. Common Ground:
Reflections on Significant Learning**
page 33

**Common Ground:
Elements of Significant Learning**

Reflecting on your own experience (see Figure 1), brainstorm elements of significant learning in the rectangular area. Then, as a group, decide which elements are most important, and record them in the inner circle.

**2. Common Ground:
Elements of Significant Learning**
page 34

**Common Ground:
Aspirations for Students**

Think about the understandings, skills, and personal qualities you would like your students to exhibit upon graduation from your program. Brainstorm your ideas in the rectangular area. Then, as a group, record your common aspirations for students in the inner circle.

**3. Common Ground:
Aspirations for Students**
page 36

Design Principles

Imagine a setting that would promote significant learning (see Figures 1-3) and help students develop desired understandings, skills, and personal qualities (Figure 3). What would be the design principles underlying such a setting? Fill five or six lines to adapt the NILES design principles (Figure 4a) to your encounter your life.

4. Design Principles
page 38

Vision Statement

Express the shared values and design principles of your school in an overall vision statement that is compelling, bold, and understandable to parents and students. Use the rectangular area of this sheet to brainstorm ideas for your vision, and write the final vision statement in the circular area.

5. Vision Statement
page 40

**Common Ground:
Aspirations for Students**

Think about the understandings, skills, and personal qualities you would like your students to exhibit upon graduation from your program. Brainstorm your ideas in the rectangular area. Then, as a group, record your common aspirations for students in the inner circle.

6. Mission Statement
page 41

Design Principles: Indicators

(Fill in Design Principles)

Imagine your school as achieving its mission and observing all of its design principles. What would be the external and observable indicators that support each principle? Brainstorm your ideas in the rectangular area, and be your final "indicators" within the circular area. Use or adapt the NILES design principles and indicators if you wish. (See the first section of the guide, "Six Principles for High School Design.")

**7. Design Principles:
Indicators**
page 42

Figure 1

Common Ground: Reflections on Significant Learning

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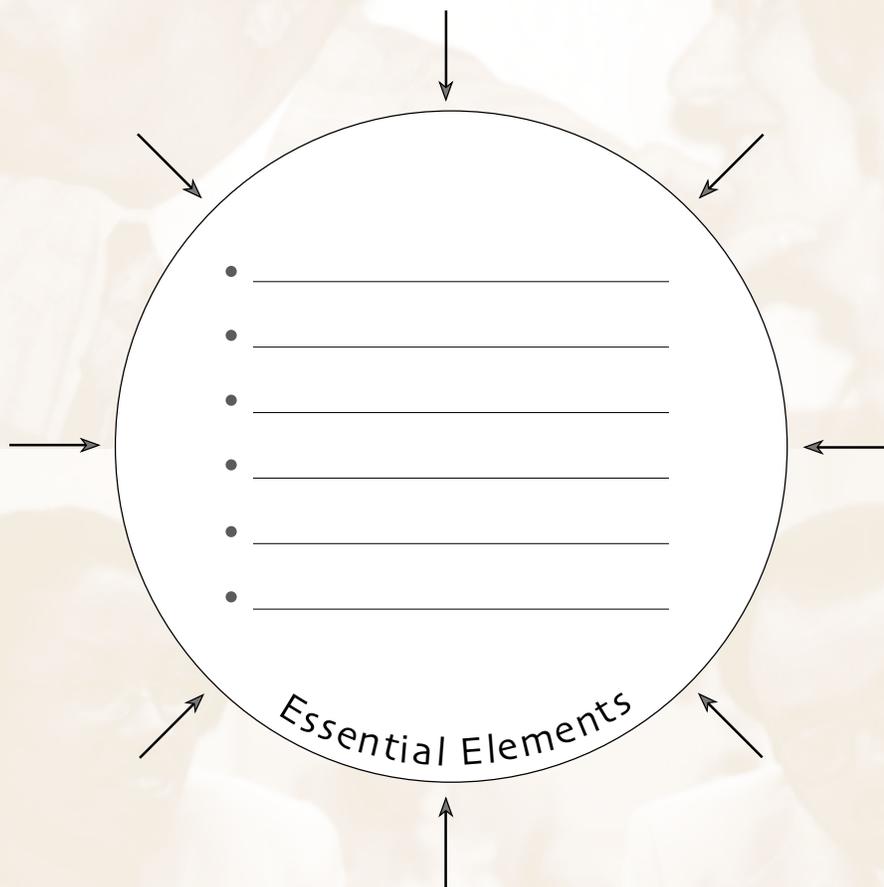
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- Out of school?
- Are there any important differences?
- What can we say about the elements of a significant learning experience?
- What are the implications for our planning?

Report (20 minutes)

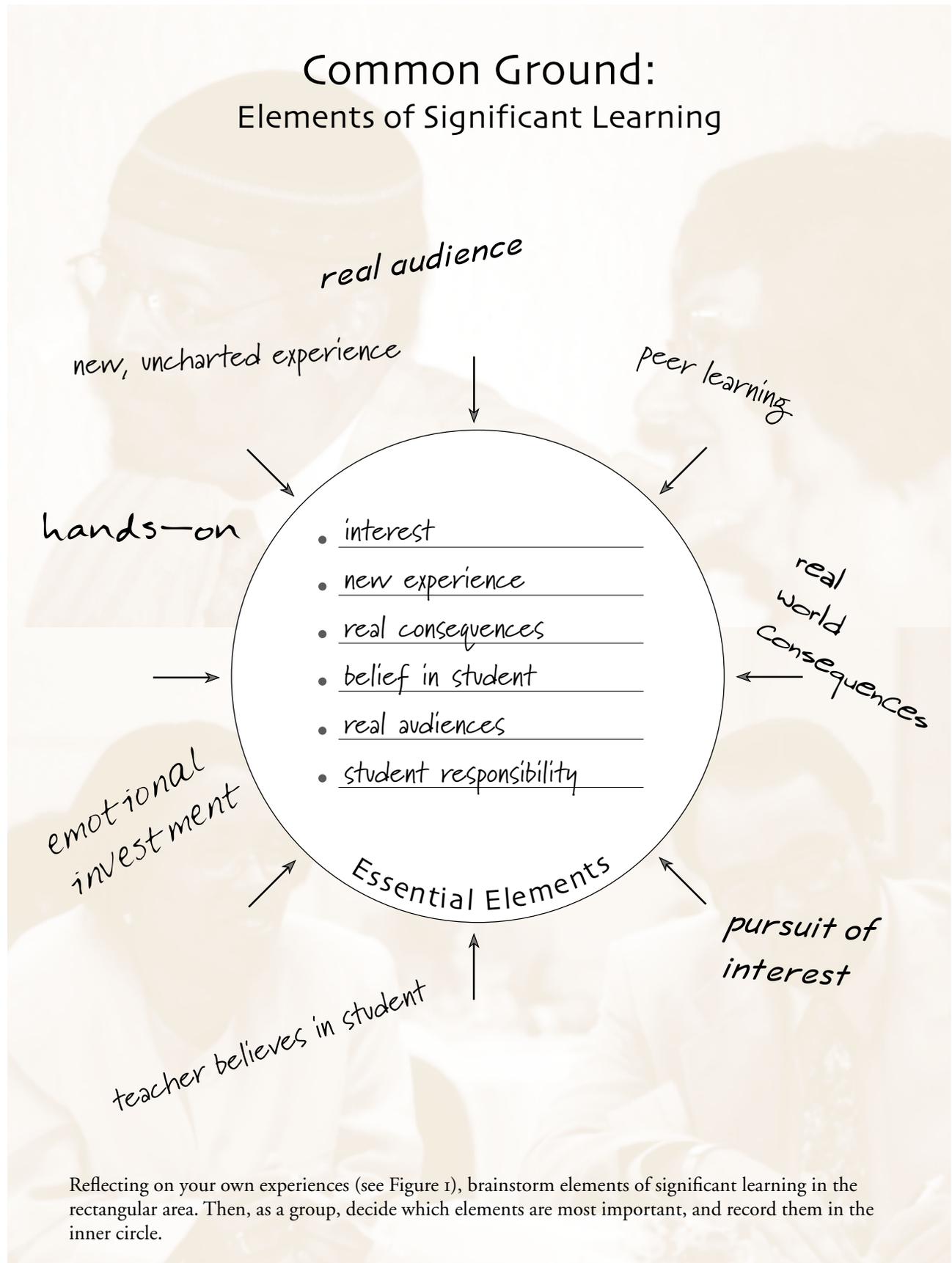
Each group reports its findings.

Common Ground: Elements of Significant Learning



Reflecting on your own experiences (see Figure 1), brainstorm elements of significant learning in the rectangular area. Then, as a group, decide which elements are most important, and record them in the inner circle.

Figure 2a • Sample



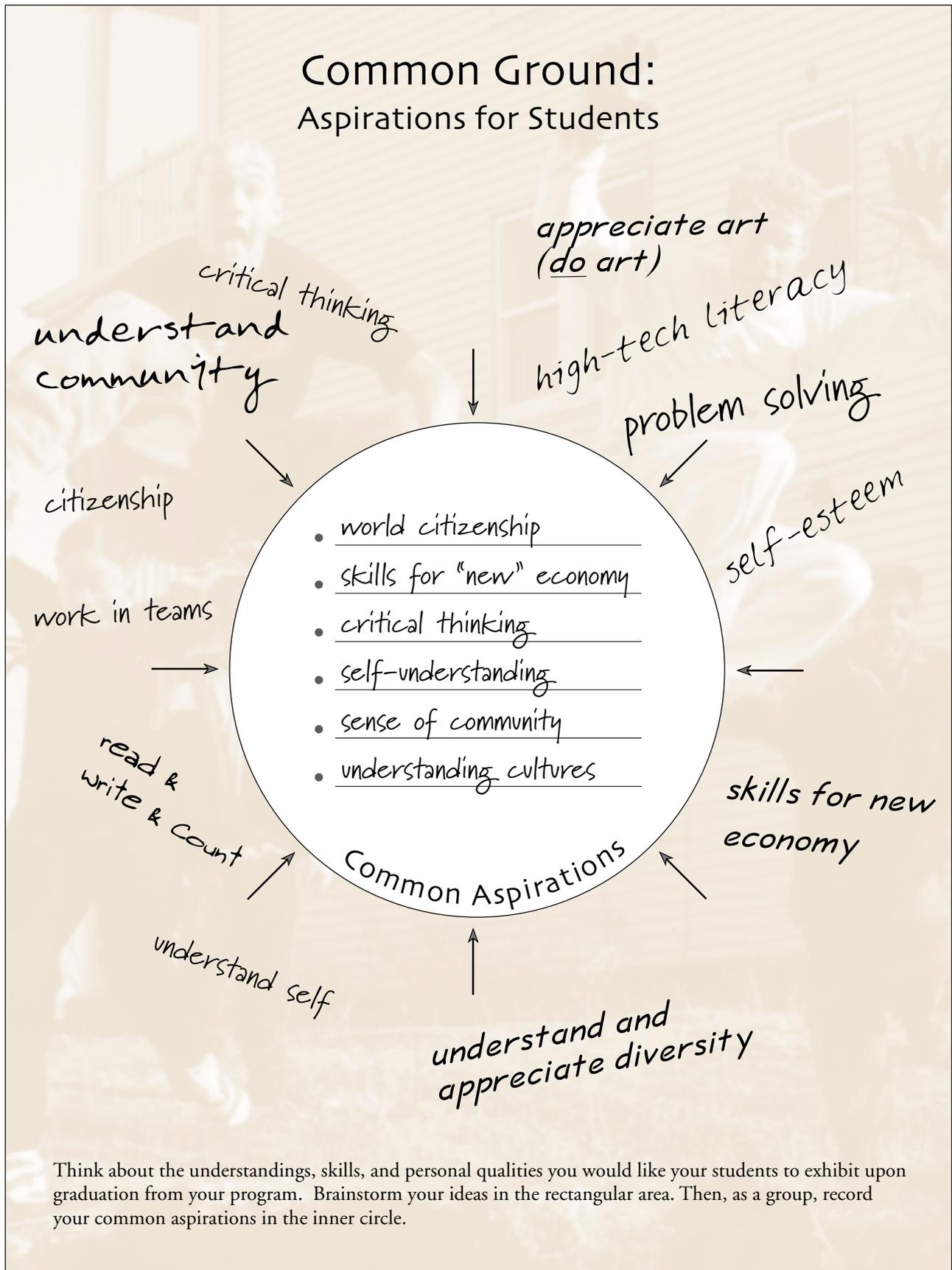
Common Ground: Aspirations for Students

Common Aspirations

- _____
- _____
- _____
- _____
- _____
- _____
- _____

Think about the understandings, skills, and personal qualities you would like your students to exhibit upon graduation from your program. Brainstorm your ideas in the rectangular area. Then, as a group, record your common aspirations in the inner circle.

Figure 3a • Sample



Think about the understandings, skills, and personal qualities you would like your students to exhibit upon graduation from your program. Brainstorm your ideas in the rectangular area. Then, as a group, record your common aspirations in the inner circle.

Design Principles

• _____
 • _____
 • _____
 • _____
 • _____
 • _____
 • _____

Design Principles

Imagine a setting that would promote significant learning (see Figures 1-2) and help students develop desired understandings, skills, and personal qualities (Figure 3). What would be the design principles underlying such a setting? Feel free to adapt the NUHS design principles (Figure 4a) as you construct your list.

Figure 4a

The New Urban High School Design Principles

- Personalization
- Adult World Immersion
- Intellectual Mission
- Contexts for Reflection
- Community Partnership
- Teacher Ownership

NUHS Design Principles

The NUHS design principles emerged from our work with exemplary schools nationwide. Taken together, they carry implications for the allocation of adult resources, for the organization of adult and student time, and for curriculum and pedagogy. We offer these principles as a basis for planning, and we include them in subsequent exercises in the hope that they will prove useful to practitioners/planners.

Vision Statement

The graphic is a large eye shape. Inside the eye is a circle, and inside the circle is a rectangular area with six horizontal lines for writing. The background of the entire page is a faded image of graduates in caps and gowns.

Express the shared values and design principles of your school in an overall vision statement that is compelling, bold, and understandable to parents and students. Use the rectangular area of this chart to brainstorm ideas for your vision, and write the final vision statement in the circular area.

Figure 6

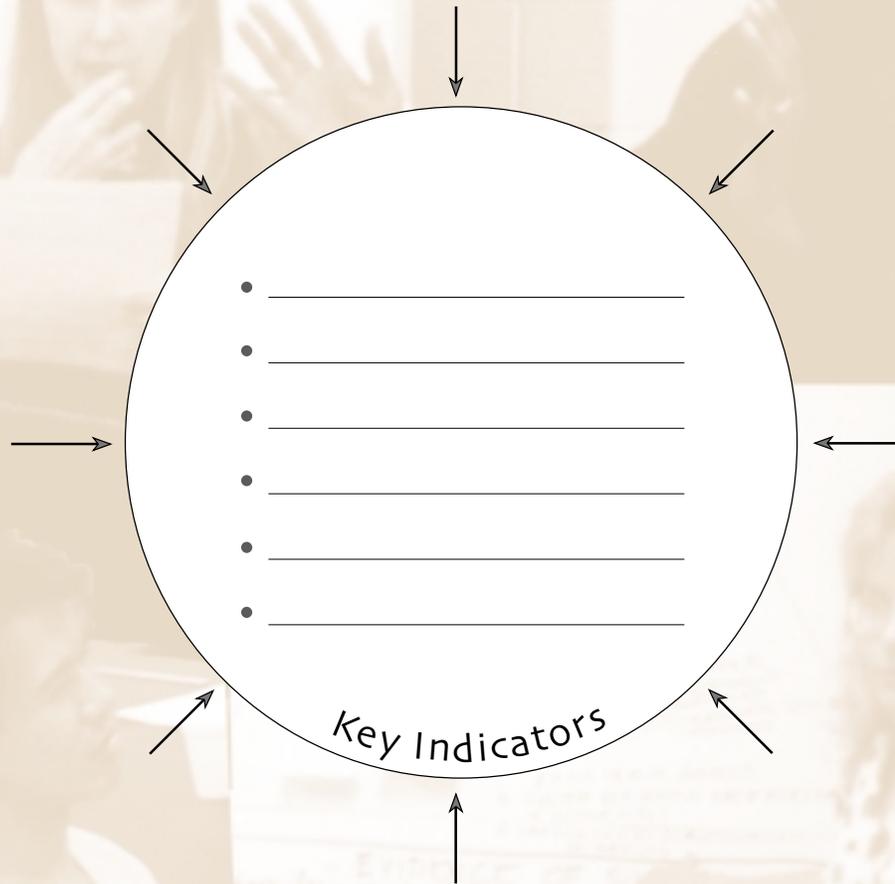
Mission Statement



Create a mission statement that elucidates how your school plans to achieve its vision. An effective mission statement is short enough for easy recall and specific enough to inform good decisions, but broad enough to allow for flexibility in implementation. Use the rectangular area of this chart to brainstorm ideas for your mission, and write the final mission statement in the circular area.

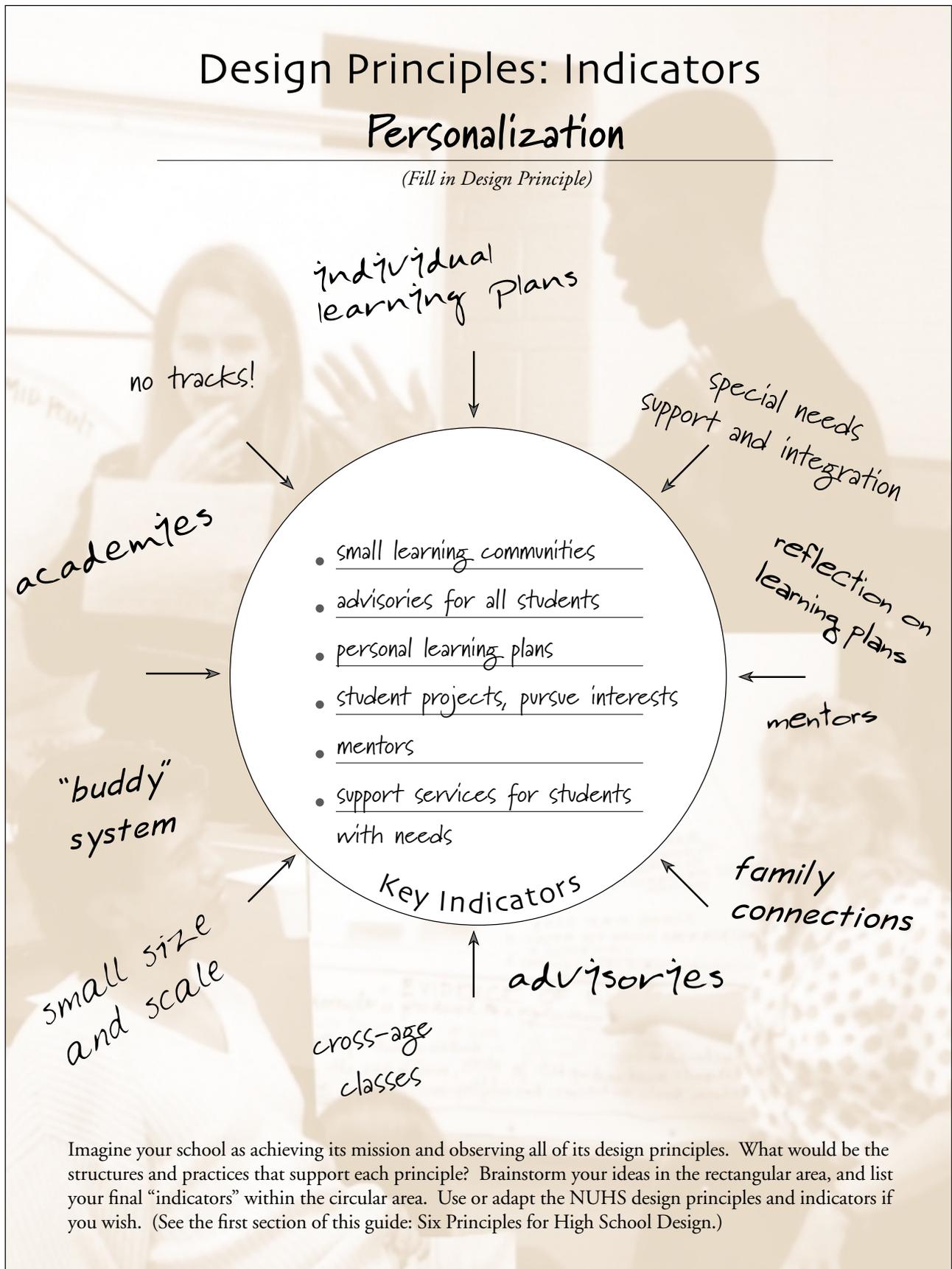
Design Principles: Indicators

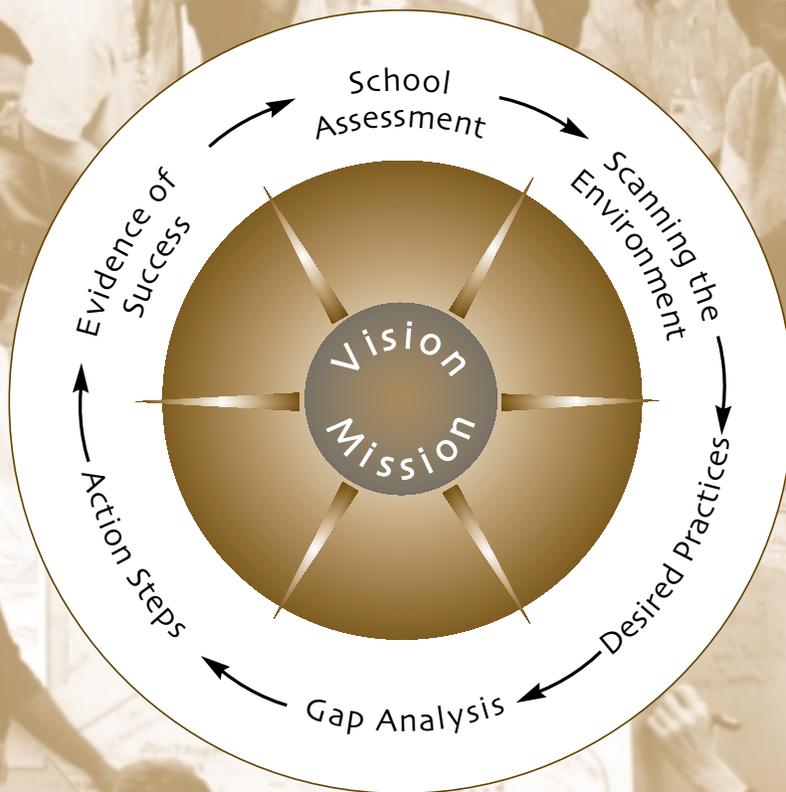
(Fill in Design Principle)



Imagine your school as achieving its mission and observing all of its design principles. What would be the structures and practices that support each principle? Brainstorm your ideas in the rectangular area, and list your final “indicators” within the circular area. Use or adapt the NUHS design principles and indicators if you wish. (See the first section of this guide: Six Principles for High School Design.)

Figure 7a • Sample





Achieving the Vision

Achieving the Vision

Investigation

Figures 8 and 9 provide tools for a close investigation of the school's present condition and prospects for change. These activities will set the stage for action planning.

Assess your school vis-à-vis the design principles (Figure 8)

The design principles assessment sheet in Figure 8 offers a way to rate your school's current performance with respect to a sample set of principles and indicators. Use the sheet directly, or develop a similar one to fit your own design principles and indicators.

Scan the environment (Figure 9)

Any assessment of school performance leads to the exploration of needs, resources, and roadblocks. For example, if your school only offers internship experiences to 20 percent of its students, then you may want to survey community resources. Which local companies already provide internships? What companies could be approached? Do other local high schools have partnerships with employers? If so, how will that affect your ability to place 100 percent of your students in internships? Discuss both the strengths and weaknesses of the school's current program and performance. Be as honest and thorough as possible, so that the remaining steps will be based on accurate and adequate information. For a sample scan, see Figure 9a.

Action Planning

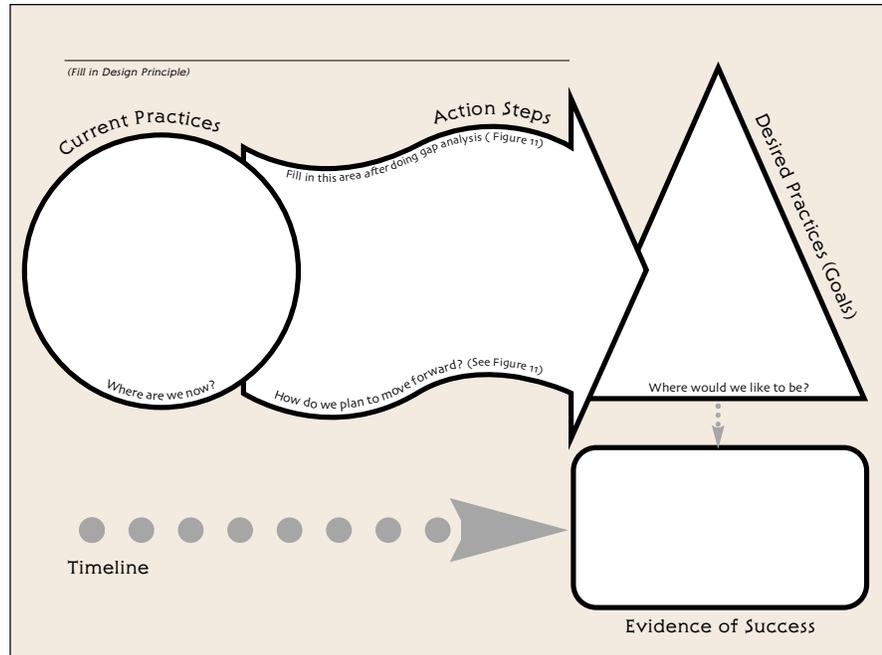
Having articulated a vision and design principles, and having scanned the environment, it is time to plan in earnest. The activities in Figures 10–13 comprise a process of defining goals and action steps, specifying what would constitute evidence of success, and setting a timeline. Throughout, the design principles serve as a lens to focus the discussion. See the image on the following page for an overview of the action planning process.

List desired and current practices, then action steps (Figure 10)

Select one to three priority principles to work with. If you are using the NUHS design principles, we suggest focusing on the three core principles: personalization, adult world immersion, and intellectual mission. For each



Overview: Design Principles Action Planning



principle, use a chart like the one represented in Figure 10 to record desired practices, current practices, and, after a gap analysis (Figure 11), action steps. Many planners find it more productive to imagine desired practices before focusing on current practices, to keep from getting bogged down by details. See Figure 10a for a sample.

There is no single way to approach this exercise. For example, during a planning meeting at one NUHS site, participants used self-adhesive notes to record their observations and ideas about three principles. They placed the notes on large sheets of paper representing each principle, gathering everyone's ideas before breaking into task groups to work on the principles separately.

Conduct a gap analysis (Figure 11)

For each design principle you select, identify the gaps that exist between current and desired practices. Once you have articulated the gaps, discuss the factors that tend to ease and, conversely, block the implementation of the desired practice. Then devise action steps for reducing the obstacles and achieving the goals. Use active verbs when writing out the steps. Return to Figure 10 and enter the action steps in the designated area. See Figures 11a and 10a for examples.

GAP ANALYSIS

In *Applied Strategic Planning* (1993), Goodstein, et. al. refer to the gap analysis as the critical step — or “moment of truth” — in strategic planning, because it reveals how well the planning group is doing. If no significant gaps emerge, the group has not gone deep enough in articulating a vision or assessing the current environment. If the gap analysis is done thoroughly and correctly, school teams will be able to work smart, not just hard, in achieving the overall vision. Finally, a gap analysis will help uncover any obvious skills, staffing, or resource needs.

Determine evidence of success (Figure 12)

How will you know when you have achieved the mission and arrived at your goals? For each desired practice, write down the key indicators of success. Organize the indicators according to type: implementation (breadth and depth of structures and practices) and performance (what students understand and can do). See the example in Figure 12a.

Create a timeline (Figure 13)

Use or adapt the timeline in Figure 13 to keep track of assignments and deadlines: what, who, and when.

Some planners prefer to use project management software for this task. Others choose to simply identify dates on a calendar. In any case, it is important to allow enough time to accomplish the work. Add 20 percent to your initial estimate so your timeline will motivate rather than discourage.

Unveiling the Plan

Now it's time to put all the charts and planning work into practice. We recommend holding a public event to announce the plan. Many schools begin with a "full review" in which all staff, students, and parents are invited to give comments or ask questions. Not only does this yield helpful feedback, but it also allows everyone a chance to reflect on, and ultimately "own" the plan.

And now the hard work — and the fun — begins. As you put your plan into action, unanticipated situations are sure to arise, calling for continual revision and refinement. Remember, as you face these situations, to let your decisions be guided by the vision and design principles that motivated the plan in the first place. Good luck! ■

USING DATA WELL

- Define success concretely
- Translate lofty goals into measurable action steps
- Use data to guide priorities and next steps
- Match expected student outcomes to stage of program development
- Use a broad range of student outcome measures

Achieving the Vision: Handouts

Design Principles: Assessing Your School

This worksheet is intended to help you assess the strengths and needs of your school. For each of the design principles below, you have listed indicators you might use to program that incorporates that principle. When matching these indicators to your program, use the following scale:

- 1 = Feature is successfully incorporated for all students
- 2 = Feature is successfully incorporated, but not for all students
- 3 = Feature is incorporated with moderate success
- 4 = Feature is in some stage of planning or adaptation
- 5 = Feature is not yet under consideration

NOTE: This worksheet is meant as a checklist, and not as a prescription for reform. Since every school and community is unique, these principles and indicators should be incorporated within the context of each school's own vision, resources, and needs, building on current strengths and successes.

Design Principles

- Personalization:** Create settings where teachers and students can know each other well.
 - small learning communities
 - advisory programs for all students
 - personal learning plans
 - teacher practices that pursue interests and passions
 - adult mentors for all students
 - support services for students with needs
- Adult World Immersion:** Situate students directly in the world beyond school.
 - internships, field studies, and other community-based learning
 - maker projects that contribute to the workplace or community
 - employ of the field placement as a learning site
 - one-on-one relationships with adults in field placements
 - career exploration embedded in the curriculum and field experiences
 - flexible block schedule
 - hands-on experience with technology

8. Design Principles: Assessing Your School
page 49

Scanning the Environment

Working individually or as a group, scan your school's environment to identify key strengths, needs, etc.

9. Scanning the Environment
page 52

Design Principles: Desired Practices, Current Practices, Action Steps

Compare a design principle, use the items for desired practices, then compare current practices to that design principle. Finally, add and edit the action steps to close the practice gap. Figure 10, indicate the action steps that will move you from one to the other.

10. Design Principles: Desired and Current Practices
page 54

Design Principles: Gap Analysis

Design Principles	
Gaps between current and desired practices	Action Steps for closing gaps

Identify gaps between current and desired practices. Devise action steps to close the gaps. Record the action steps based on Figure 10 and 11.

11. Design Principles: Gap Analysis
page 56

Evidence of Success

Design Principles	
Desired Practices	Evidence of Success

Use this chart to list desired practices for any given design principle, as recorded in Figure 10. Then, for each desired practice, list the implementation and performance data that would provide evidence of success.

12. Evidence of Success
page 58

Action Steps Timeline

Figure 10, when you have Figure 11. This record the key personnel and time frame for each step.

13. Action Steps Timeline
page 60

Figure 8

Design Principles: Assessing Your School

This worksheet is intended to help you assess the strengths and needs of your school. For each of the design principles below, we have listed indicators one might see in a program that incorporates that principle. When matching these indicators to your program, use the following scale:

- 5 = Feature is successfully incorporated for all students
- 4 = Feature is successfully incorporated, but not for all students
- 3 = Feature is incorporated with moderate success
- 2 = Feature is in some stage of planning or adaptation
- 1 = Feature is not yet under consideration

NOTE: This worksheet is meant as a checklist, and not as a prescription for reform. Since every school and community is unique, these principles and indicators should be incorporated within the context of each school's own vision, resources, and needs, building on current strengths and successes.

Design Principles

1. **Personalization:** Create settings where teachers and students can know each other well.

- small learning communities
- advisory programs for all students
- personal learning plans
- student projects that pursue interests and passions
- adult mentors for all students
- support services for students with needs

2. **Adult World Immersion:** Situate students directly in the world beyond school.

- internships, field studies, and other community-based learning
- student projects that contribute to the workplace or community
- analysis of the field placement as a learning site
- one-on-one relationships with adults in field placements
- career exploration embedded in the curriculum and field experiences
- flexible block schedule
- hands-on experience with technology

Design Principles: Assessing Your School

3. Intellectual Mission: Articulate a common intellectual mission for all students.

- common core goals across the curriculum
- curriculum integration across vocational and academic areas
- cross-cutting standards developed and assessed internally
- assessment focused on what students understand and can do
- field experience connected with academics, and vice-versa
- program standards that allow all students to qualify for four-year college

4. Contexts for Reflection: Provide integrated, reflective contexts for students and teachers to uncover the meaning of their work.

- reflection as an explicit academic routine
- internship seminars and advisory groups
- regular exhibitions of student work
- internship and other academic journals
- student and teacher portfolios

5. Community Partnership: Involve family and community in program planning, implementation, and evaluation.

- well-managed partnerships with community organizations
- family as partner in developing learning plans and viewing student work
- use of community resources for learning
- curriculum that explores and addresses community needs
- post-secondary articulation agreements, e.g., dual credit, advanced standing
- public engagement activities

6. Teacher Ownership: Support the teacher as designer, inquirer, and clinician.

- common planning time for teacher teams
- teachers in leadership roles
- support and resources for teachers' learning
- training for effective small group process

Overall Vision: Assessing Your School

Looking at your school overall:

- 1) Do you ensure that each student is known well by at least one adult in your school?

- 2) Is your program structured so as to make adult work and learning visible and accessible to all students?

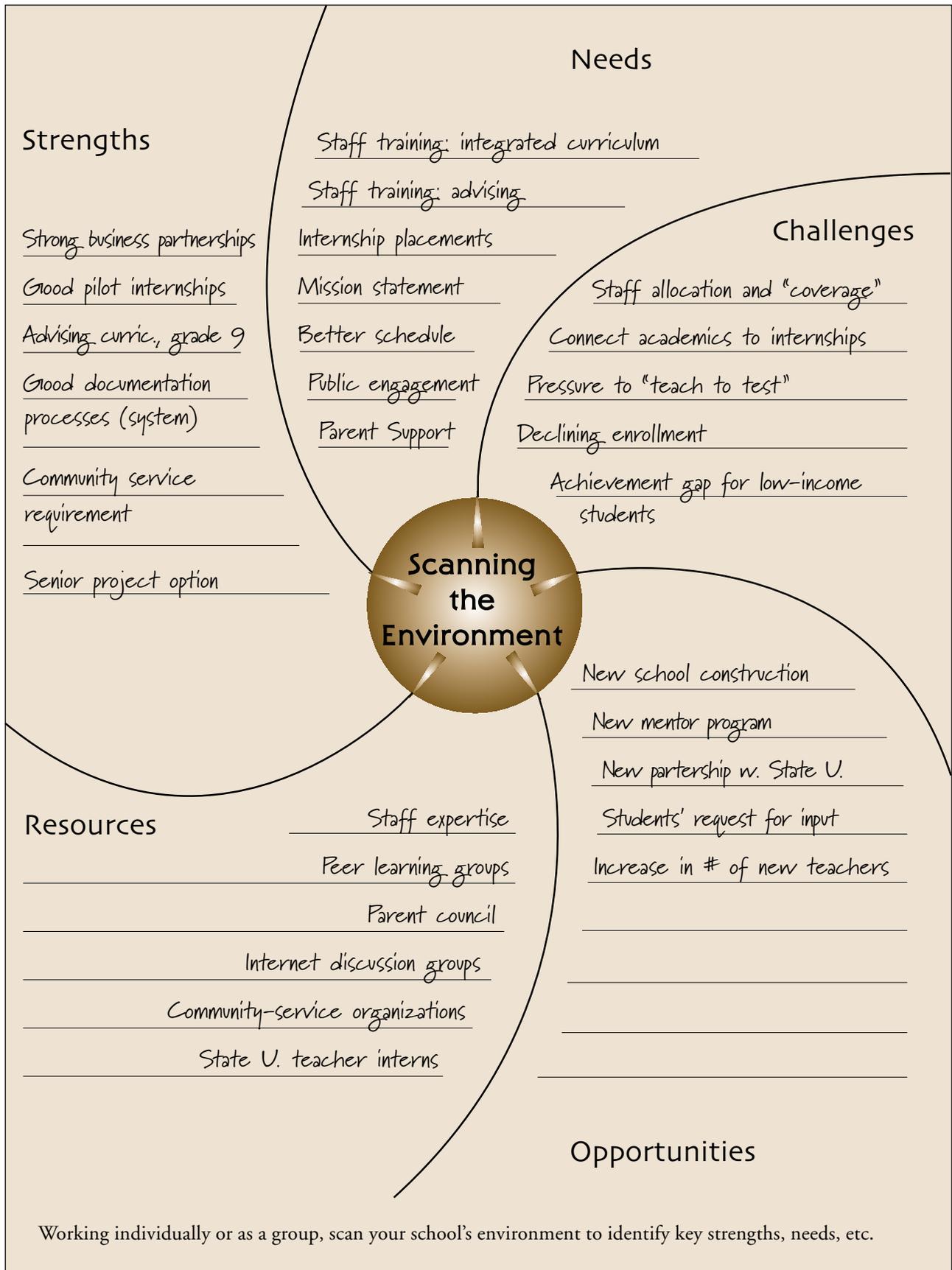
- 3) Does your school enact a vision of occupation as a context for learning, rather than an outcome?

- 4) Is this a place where teachers can and do learn?

- 5) Do you know where your graduates are?
Does your school collect reliable, longitudinal data on post-secondary outcomes?

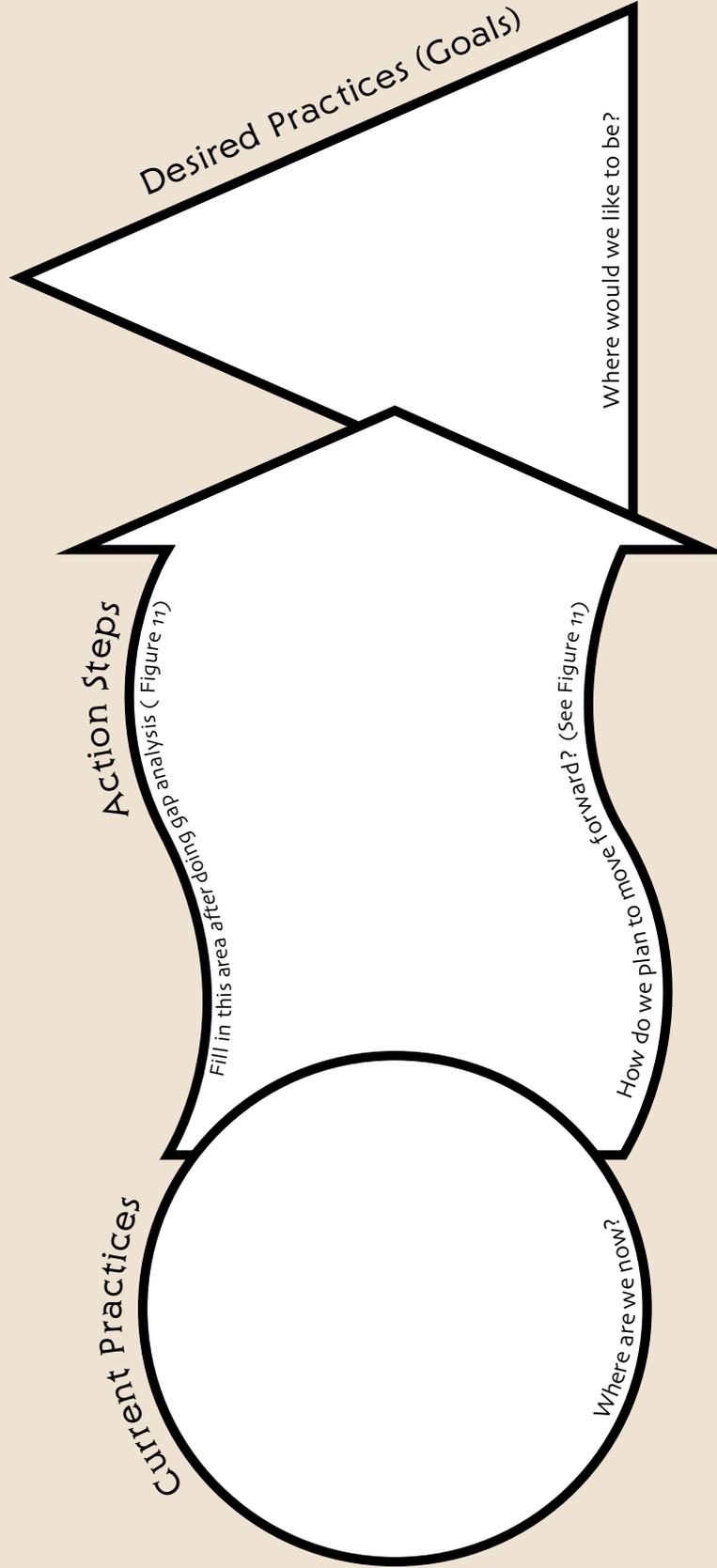
If your response to any of these questions is No or a qualified Yes, what changes would be needed for your school to achieve its vision?

Figure 9a • Sample



Design Principles: Desired Practices, Current Practices, Action Steps

(Fill in Design Principle)

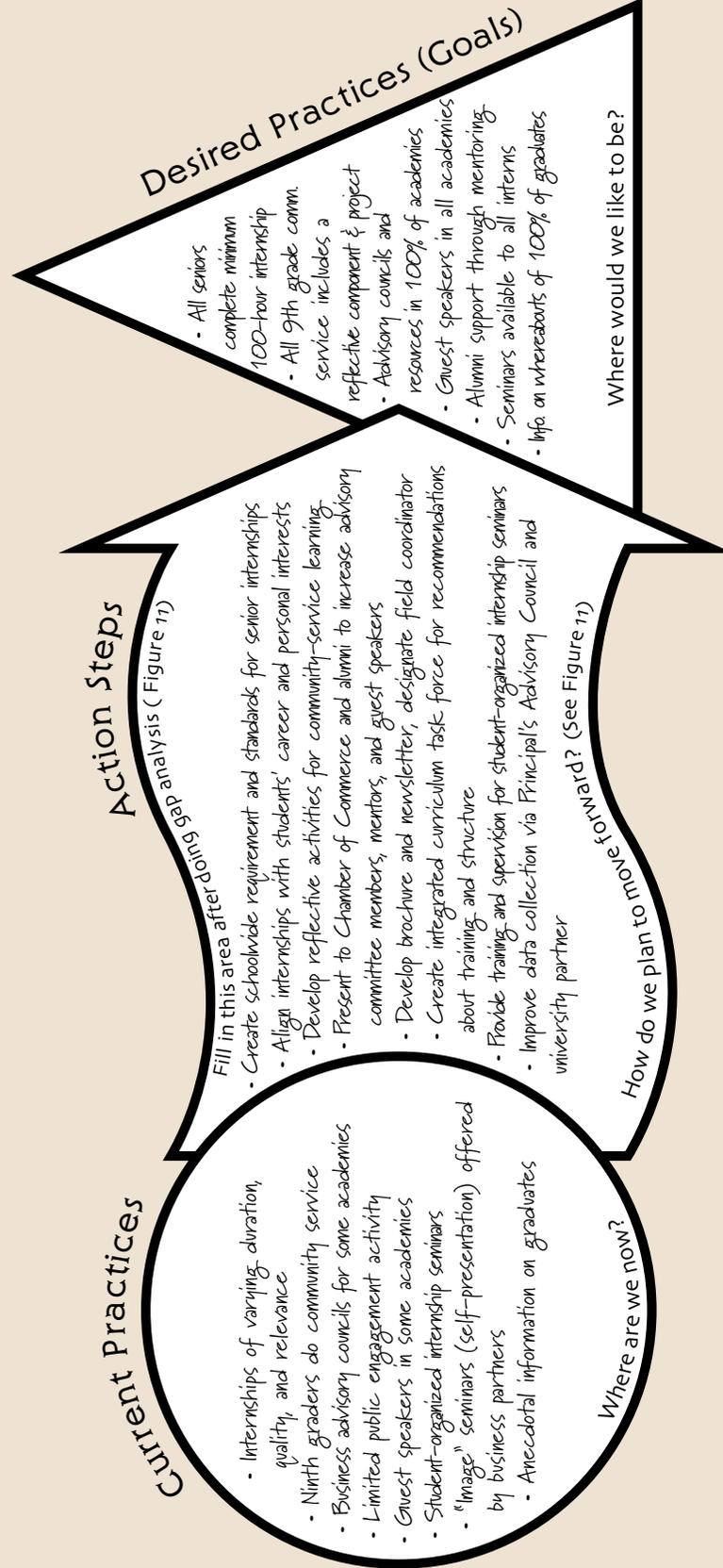


Choose a design principle. Use this chart to list desired practices, then current practices related to that design principle. Finally, after analyzing the gaps between current and desired practices (see Figure 11), outline the action steps that will move you from one to the other.

Figure 10a • Sample

Design Principles: Desired Practices, Current Practices, Action Steps Adult World Immersion

(Fill in Design Principle)



Choose a design principle. Use this chart to list desired practices, then current practices related to that design principle. Finally, after analyzing the gaps between current and desired practices (see Figure 11), outline the action steps that will move you from one to the other.

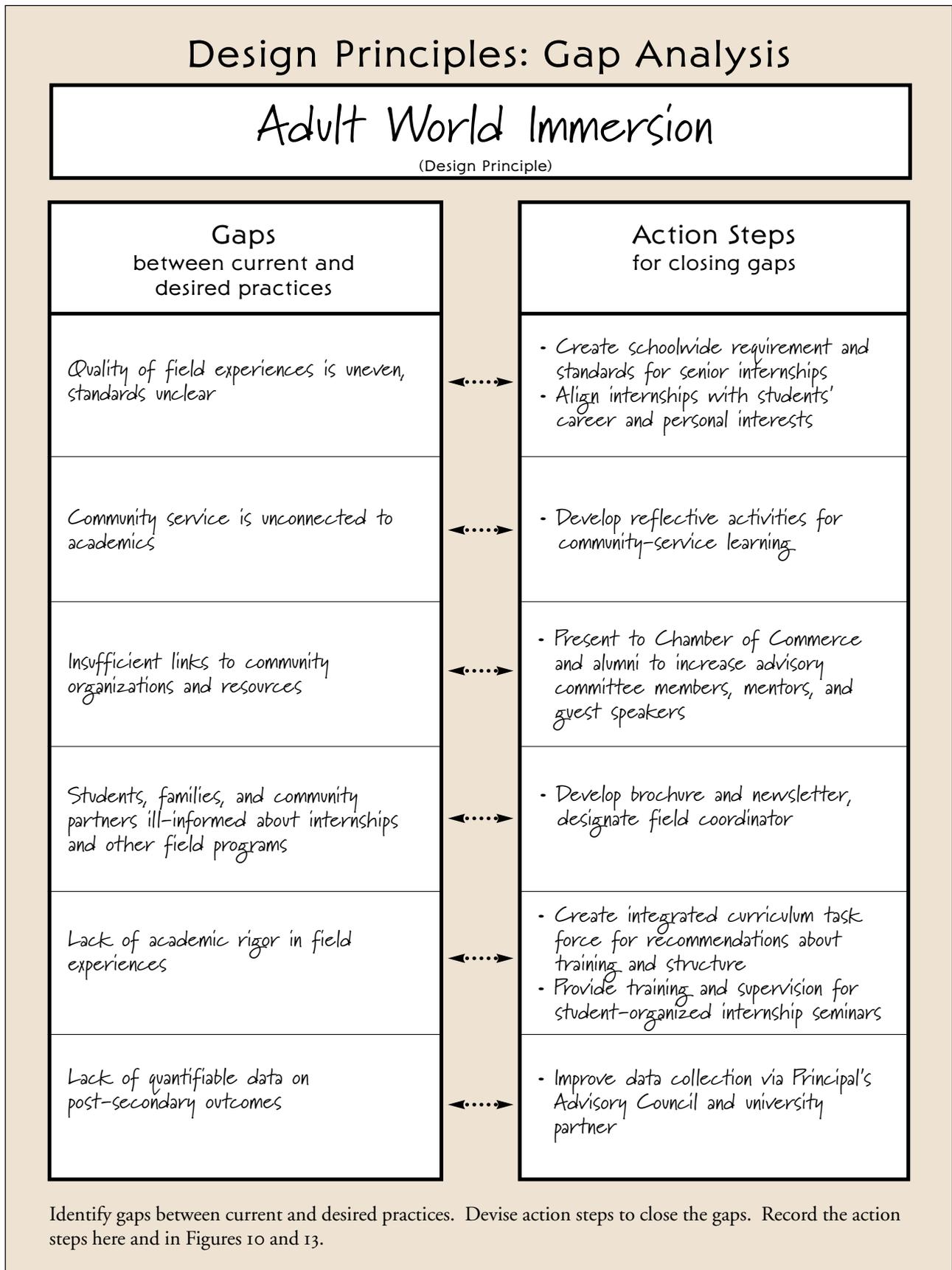
Design Principles: Gap Analysis

(Design Principle)

Gaps between current and desired practices		Action Steps for closing gaps
	←.....→	
	←.....→	
	←.....→	
	←.....→	
	←.....→	
	←.....→	
	←.....→	

Identify gaps between current and desired practices. Devise action steps to close the gaps. Record the action steps here and in Figures 10 and 13.

Figure 11a • Sample



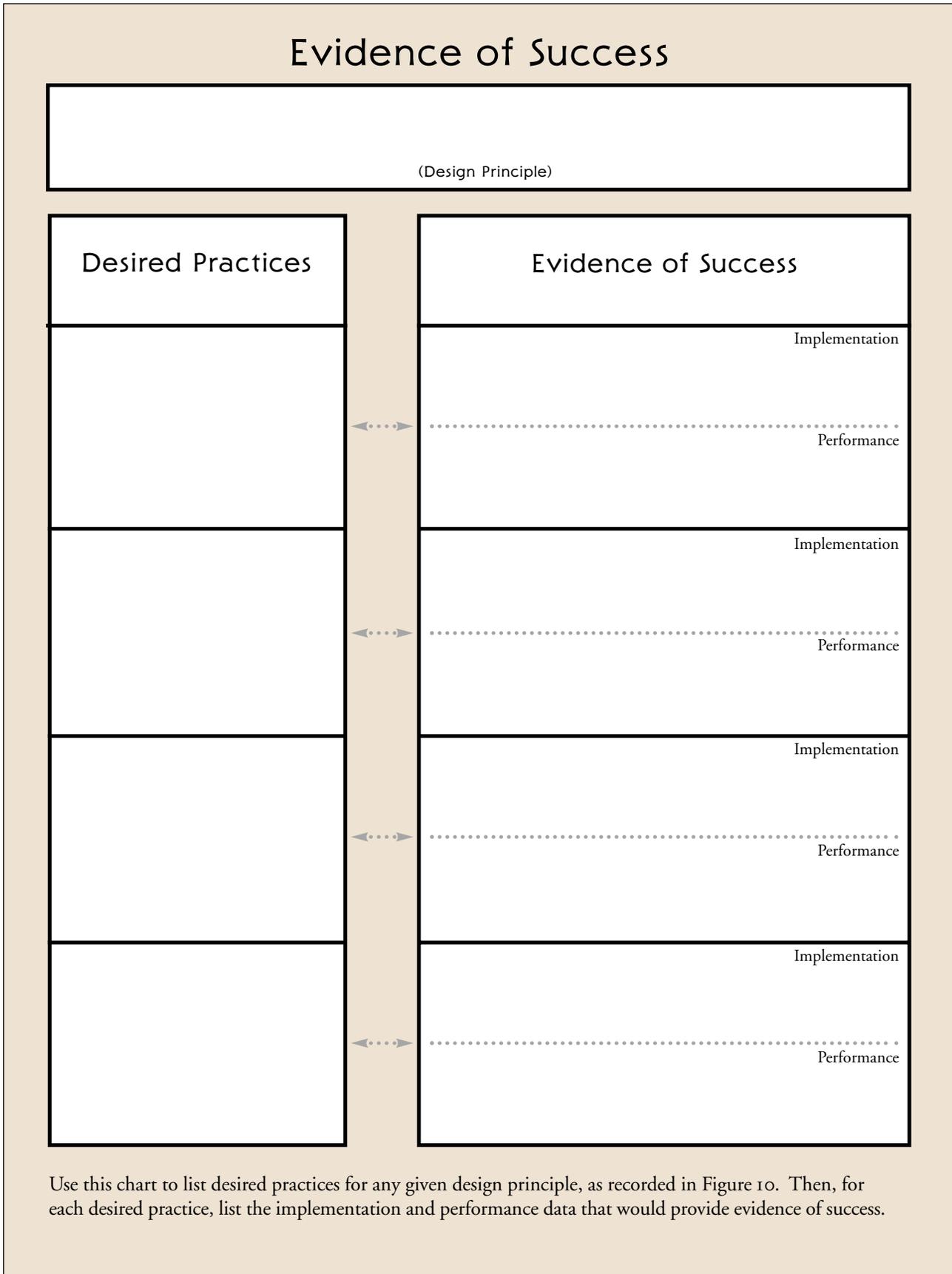
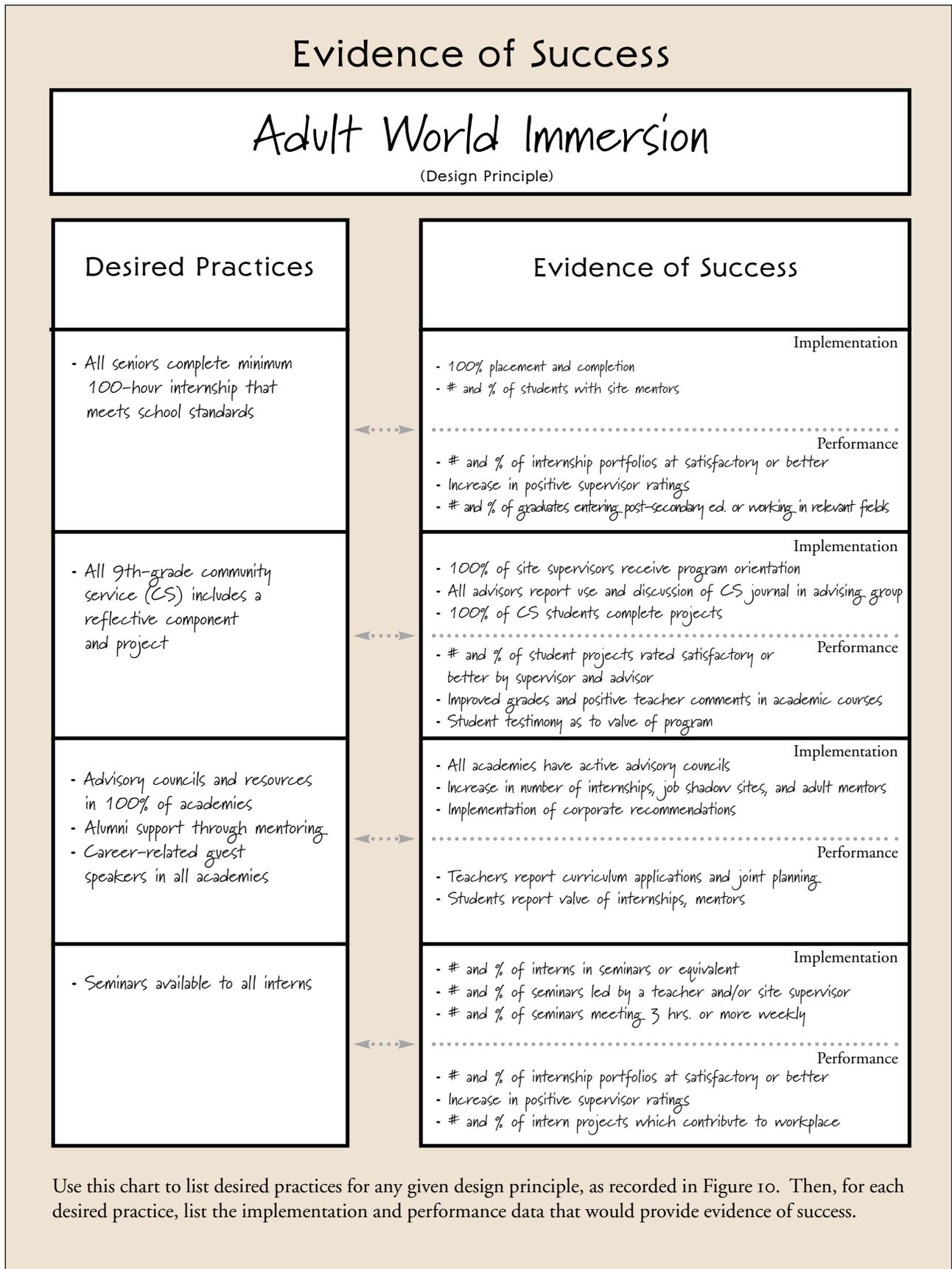


Figure 12a • Sample



Action Steps Timeline

When:

Who:

What:

Enter the action steps from Figure 11. Then, record the lead person(s) and time frame for each step.

Glossary
Resources
Appendices

Glossary*

All Students

We understand “all students” as it is defined in the School-to-Work Opportunities Act: “both male and female students from a broad range of backgrounds and circumstances, including disadvantaged students, students with diverse racial, ethnic, or cultural backgrounds, American Indians, Alaska Natives, Native Hawaiians, students with disabilities, students with limited English proficiency, migrant children, school dropouts, and academically talented students.”

Block Scheduling

Block scheduling is a means of reconfiguring the school day. The traditional school day is typically divided into six or seven classes, each lasting from 45 to 55 minutes. Blocked courses run for two or more continuous class periods, allowing students more time for laboratory or project-centered work, field trips or work-based learning, and special assemblies or speakers.

Career Academy

A career academy is typically a school-within-a-school that offers academic programs organized around a broad career theme. Classroom instruction is often integrated with worksite learning, as academies try to equip students with the necessary skills for college and career. Staffed by interdisciplinary teams, academies usually offer classes that are block-scheduled and smaller than those in the typical high school. This smaller scale allows for a personalized approach and helps build a sense of community. Business partners often assist in planning academy curricula by making suggestions about program structure, providing mentors and speakers, and hosting field trips. Academy students may do internships related to their field of study, both in the summer and during the school year.

Career Exploration

Career exploration provides in-depth exposure to career options for students. Activities may include the study of career opportunities in particular fields, review of local labor market information, job shadows, workplace interviews, and writing individual learning plans that dovetail with career interests. Ideally, career exploration becomes a lifelong process of matching personal goals with career opportunities.

Connecting Activities

Connecting activities help students link learning at school and at work. These activities may include:

- matching students with work-based opportunities
- using school personnel as liaisons between educators, businesses, parents, and community partners
- helping employers and educators design comprehensive school-to-work systems

*Adapted in part from “School-to-Work Glossary of Terms,” published by the National School-to-Work Office, Washington, D.C., July 1996.

- providing technical assistance to help teachers integrate school- and work-based learning as well as academic and occupational subject matter
- encouraging business involvement in school and work-based activities
- helping school-to-work completers find appropriate work, continue their education, and link up to community services as appropriate
- assessing post-program outcomes, particularly with reference to selected populations

Contextual Learning

Contextual learning enables students to test academic theories via tangible, real-world applications. Stressing the development of “authentic” problem-solving skills, contextual learning is designed to blend teaching methods, content, and situations, allowing students to acquire knowledge in close relationship with actual experience.

Field Studies/Work/Experience/Placement

Throughout this volume we use the term *field* to refer broadly to contexts for learning outside the classroom, including worksites, community-service sites, or other places in the community where students are conducting studies or developing projects.

Integrated Curriculum

A curriculum is integrated when academic and occupational or career subject matter — normally offered in separate courses — are taught in a manner that brings different disciplinary lenses to bear on common, cross-cutting themes and questions. Such integration may range from the simple introduction of academics into traditional occupational courses to comprehensive programs that organize all instruction around career themes.

Internships

Internships are experiences where students work for an employer for a specified period of time to encounter the world of work and to learn about a particular industry or occupation. Students’ workplace activities may include special projects, a sample of tasks from different jobs, or tasks from a single occupation. The program may or may not offer financial compensation.

Job Shadowing

Job shadowing is a career exploration activity in which a student follows an employee at a firm for one or more days to learn about a particular occupation or industry. Job shadowing may help students explore a range of career objectives and select a career major for high school or college.

Mentor

A workplace mentor is an employee or other individual, approved by the employer at the workplace and the school, who instructs the student, critiques the student’s workplace performance, challenges him or her to perform well, and works in consultation with the student’s teachers and advisors.

On-the-Job Training

On-the-job training is hands-on training in specific occupational skills that students receive as part of their workplace experiences.

Portfolio

A portfolio is a collection of work that documents a student's educational experiences and performance over time. It typically includes a range of materials (e.g., writings, drawings, photographs of projects, evaluations) selected by the student. A brief introduction and summary statement usually describes how the portfolio was assembled and what was learned in the process. Portfolios can serve a variety of purposes in the classroom, such as:

- increasing student learning opportunities
- helping students demonstrate a wide variety of skills
- helping students recognize their own academic growth
- teaching students to take greater responsibility for their own learning and development.

The portfolio process provides an alternative means of observing and reporting students' cognitive and academic progress, helps drive instructional improvement, and fosters professional development by encouraging teachers to look collaboratively at students' work.

Project-Based Learning

Well-conceived projects engage the heart, hands, and mind by encouraging students to create products of value to themselves and the community. Such projects challenge students to develop the independent learning skills and habits of mind necessary for success in college and the workplace. In *The New Urban High School: A Practitioner's Guide*, we offer a complete guide to student projects.

Reflection

Reflection, literally, means thinking about one's life and work. Carried out through journals, discussion, projects, and other means, reflection is a key connecting activity. Through reflection, students connect lessons at work with lessons at school, assess the significance of their learning, develop new understandings, and connect the learning with their evolving personal and career goals.

Rubrics

Rubrics are sets of directions for assessing the quality of student projects or other work — for example, lists of the attributes that would place some aspect of a student project in a category of Needs Improvement, Satisfactory, or Proficient.

SCANS (Secretary's Commission on Achieving Necessary Skills)

In a 1991 report, this federal commission identified three foundation skills and five workplace competencies necessary for work readiness in any occupational area.

The workplace competencies include:

- Resources: allocating time, money, materials, space, and staff

- Interpersonal Skills: working on teams, teaching others, serving customers, leading, negotiating, and working well with people from culturally diverse backgrounds
- Information: acquiring and evaluating data, organizing and maintaining files, interpreting and communicating, and using computers to process information
- Systems: understanding social, organizational, and technological systems, monitoring and correcting performance, and designing or improving systems
- Technology: selecting equipment and tools, applying technology to specific tasks, and maintaining and troubleshooting technologies

The foundation skills include:

- Basic Skills: reading, writing, arithmetic and mathematics, speaking, and listening
- Thinking Skills: thinking creatively, making decisions, solving problems, seeing things in the mind's eye, knowing how to learn, and reasoning
- Personal Qualities: individual responsibility, self-esteem, sociability, self-management, integrity

School-Based Enterprise

Entrepreneurial projects provide opportunities for school-age youth to assess, design, and operate business and community-service activities. In a school-based enterprise, students produce goods or services as part of their school program. Such projects often involve the sale of goods for use by others.

Service Learning

Service learning combines community service with a structured school-based opportunity for reflection, emphasizing the connections between service experiences and academic learning. Although service-learning activities vary by educational purpose, most programs balance the student's need to learn with the recipient's need for service. While addressing local needs, students acquire skills and knowledge, achieve personal satisfaction, and practice civic responsibility. Service learning and work-based learning may overlap, as when a student does an internship in a non-profit community-service organization.

Work-Based Learning

Work-based learning denotes a range of learning activities that involve work experience or connect classroom learning to the world of work. At its most comprehensive, work-based learning fully integrates academic and occupational curriculum with worksite experience.

Worksite

We use the term *worksite* to refer generally to any place of adult work in the world beyond school, including community-service sites where adults hold jobs. ■

Resources

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NUHS Sites at a Glance

CPESS at a Glance

Central Park East Secondary School

1573 Madison Avenue

New York, NY 10029

Tel: (212) 860-8935

Fax: (212) 876-3494

David Smith, Director

A Small Neighborhood School, Grades 7–12

Opened: September 1985

Students: 460 (45% Hispanic, 45% African American)

Teachers: 38 (40% of color)

Teacher Load: 42 students or fewer per week

Advisor Load: 15 students or fewer

Admissions: No requirements

Web site: <http://mail.csd4.k12.ny.us/cpass/>



A small neighborhood school in East Harlem, CPESS serves 460 students in grades 7–12. Well-known for its district and national leadership in the movement toward smaller schools characterized by intellectual rigor and a sense of community, CPESS is also a leader in providing quality work-based learning for all students. All students in grades 8–10 perform structured, supported community service. As a requirement for graduation, every CPESS student completes a minimum one-semester, 100-hour internship, accompanied by a portfolio describing that work. The community service and internships are mediated through the CPESS advisory program, an exemplary support system for student learning and reflection. CPESS students learn to draw connections across disciplines and to use their minds well by applying five “habits of mind” (connection, perspective, evidence, speculation, and significance) to their experiences in and out of school.

CVCA at a Glance

Chicago Vocational Career Academy

2100 E. 87th Street

Chicago, IL 60617

Tel: (773) 535-6100

Fax: (773) 535-6633

Betty Despenza-Green, Principal

A Chicago Public High School Career Academy

Restructuring began 1991

Students: 2400 (99.5% African American)

Teachers: 144 (70% African American, 28% white)

Admissions: No requirements

Serving 2,400 students in a huge physical plant covering 750,000 square feet, this school has transformed itself over the past 8 years into 8 schools-within-a-school, organized by broad career clusters. Within each cluster (grades 11 and 12) vocational and academic teachers meet together regularly to plan integrated units focusing on essential questions for study. All ninth and tenth graders enter the Junior Academy, where groups of 100 students work with teams of academic and technical teachers. When a group moves from the ninth to tenth grade, its teachers go with it. A member of the Coalition of Essential Schools, CVCA has been recognized widely for exemplary leadership and for its unique achievement in personalizing education in a large urban site.



Hoover at a Glance

Hoover High School
4474 El Cajon Boulevard
San Diego, CA 92115
Tel: (619) 283-6281
Fax: (619) 280-5837

Beth Limoli, Acting Principal

A Comprehensive High School

Opened: 1930. Restructuring began 1991.

Students: 1849 (51% Hispanic, 21% African American, 20% Indochinese)

Teachers: 97 (80% white, 8% Hispanic, 5% African American)

Admissions: No requirements

Web site: hoover.sdcs.k12.ca.us/

A comprehensive high school serving over 1,800 students, Hoover High School organizes each grade level into interdisciplinary teams of students and teachers. Juniors and seniors choose to enter one of three broad career strands which offer integrated vocational and academic curriculum. All seniors complete a six-week internship program that includes two weeks of training, four weeks of worksite experience, and one day a week of in-class reflection. Students develop personal learning plans that incorporate “Hoover Learner Outcomes (HLOs),” documenting their work in portfolios and presenting final exhibitions before a panel of adults. For college applications and career exploration, some students digitally transform their portfolios into “electronic transcripts.” A member of the Coalition of Essential Schools, Hoover is also a Title I School, a California 1274 Restructuring School, and a model school for a K–12 Educational Pilot program with San Diego State University.



The Academy at a Glance

St. Louis Career Academy
 3125 S. Kingshighway
 St. Louis, MO 63139
 Tel: (314) 772-8200
 Fax: (314) 771-2150

Georgia Calhoun-Green, Acting Principal

A New Vocational School with Life Sciences and
 Technology Career Pathways

Opened: September 1996

Students: 375 students, grades 9–11 (60% African-American)

Projected Enrollment: 530–550

Staff: 34 teachers (20 white, 11 African-American, 2 Hispanic, 1 Asian)

Admissions:

40% from St. Louis County, 60% from the City of St. Louis

$\frac{1}{3}$ selected at random, $\frac{2}{3}$ selected based on

- interviews • grades • reading and math scores
- attendance and discipline records

This new school offers a unique mix of computer-assisted instruction and project-based learning in a redesigned high school setting featuring individual work stations and small group settings rather than conventional classrooms. Each student works on academic skills at a personal computer for up to three hours daily, meets with an advisory group, and participates in group projects connected with the community. Academy sophomores engage in job shadowing experiences, and juniors participate in ten-hour per week internships in the life sciences, reflecting on this work through portfolios and exhibitions.



Turner Tech at a Glance

William H. Turner Technical Arts High School
10151 N.W. 19th Avenue
Miami, FL 33147-1315
Tel: (305) 691-8324
Fax: (305) 693-9463

Darrel P. Berteaux, Principal

One School, Eight Academies

Opened: September 1993

Students: 2,073 (57% African American, 37% Hispanic, 5% white)

Teachers: 100 (55% white, 25% African American, 17% Hispanic)

Admissions: Eligibility based on attendance, conduct, and technical interest

Web site: www.dade.k12.fl.us/whtts



Established in 1993, Miami's Turner Tech offers 22 programs of study to 2,073 students within eight broad career academies. A member of the Coalition of Essential Schools and a model for Dade County, Turner is noted for its ground-breaking work in integrating vocational and academic curriculum and creating an atmosphere of high expectations for all students. Turner is a dual diploma school, offering occupational certification to its students along with a high school diploma that signals their readiness for post-secondary education. Students demonstrate mastery of essential knowledge and skills through portfolios, exhibitions, and other performance-based assessments.

The Met at a Glance

The Metropolitan Regional Career and Technical Center
 80 Washington Street, Room 436
 Providence, RI 02903
 Tel: (401) 277-5046
 Fax: (401) 277-5049

Dennis Littky and Elliot Washor, Co-Principals

A Regional Career-Technical School

Opened: September 1996

Students: 160

(44% white, 33% Latino, 19% African American, 2% Asian, 2% other)

Projected Enrollment: 900 students in units of no more than 100

Teacher/Advisors: 12 (75% white, 17% African American, 8% Latino)

Admissions: No requirements; program discussed thoroughly with families before enrollment

Web site: www.bigpicture.org

The Met serves as the laboratory school for NUHS. Based in Providence, Rhode Island, the Met opened in September 1996 with 50 ninth-graders. Now serving 160 students in grades 9–11, the Met will grow to a 9–12 school with up to 900 students, on a campus composed of small units. All students at the Met have personalized learning plans centered on their interests and designed by a team consisting of student, teacher/advisor, parent(s), and a mentor from the community. Students spend much of their time working at internships, engaging in community service, and learning through projects that have consequences outside of school.



Seattle at a Glance

Seattle Public Schools
 Department of School-to-Work
 Shep Siegel, Director
 2120 South Jackson, Room 602
 Seattle, WA 98144
 Tel: (206) 720-3218
 Fax: (206) 720-3429

Web site for Seattle Public Schools: <http://sea-css.ssd.k12.wa.us/>

Lead High Schools:

Chief Sealth High School

Charlie Walker, Principal
 2600 SW Thistle Street
 Seattle, WA 98126
 (206) 933-5300

Nathan Hale High School

Eric Benson, Principal
 10750 30th Avenue NE
 Seattle, WA 98125
 (206) 366-7800

Ingraham High School

Gloria Izard-Baldwin, Principal
 1819 North 135th Street
 Seattle, WA 98133
 (206) 366-7870

West Seattle High School

Jim McConnell, Principal
 4075 SW Stevens
 Seattle, WA 98116
 (206) 933-5330



As a dissemination district for the NUHS project, Seattle is demonstrating the process of adapting the NUHS design principles as a template for district-wide high school reform. Four high schools lead this initiative: Chief Sealth, Ingraham, Nathan Hale, and West Seattle. With consultation from NUHS and school-to-work office staff, each lead school has been directing its change efforts toward at least one design principle. In March 1999, the schools presented a local exhibition of their work to a gathering of district and school personnel, business partners, school committee members, and representatives of local and state elected officials. This dual work of strategic planning and dissemination is enhanced by Seattle's participation in the New American High School Initiative (NAHS), sponsored by the U.S. Department of Education. ■

Design Principles in Action at the New Urban High School Sites

1. Personalization: Create settings where teachers and students can know each other well.

Indicators	Examples from NUHS Sites
Small learning communities	<ul style="list-style-type: none"> · Hoover, CVCA, and Turner are divided into small academies, coalitions, or career strands · Chief Sealth and Ingraham have career academies · CPESS: small school, small classes · St. Louis is divided into four small houses · The Met: 9 projected schools of 100 students each · Nathan Hale: 9th grade divided into groups of 120 students and 6 teachers · All NUHS sites are untracked
Advisory programs for all students	<ul style="list-style-type: none"> · St. Louis, CPESS, the Met: all students in advisory groups · CVCA: all ninth and tenth graders in advisory groups · Hoover humanities classes serve as advisory groups
Personal learning plans (PLPs)	<ul style="list-style-type: none"> · St. Louis, CVCA, Met, CPESS: all students have PLPs
Student projects that pursue interests and passions	<ul style="list-style-type: none"> · All Met student projects and learning plans are interest-based · Hoover: interest-based humanities projects
Adult mentors for all students	<ul style="list-style-type: none"> · All Met students have a mentor at internship site · Internship students at Turner and CPESS have mentors · Hoover alumni mentor program
Support services for students with needs	<ul style="list-style-type: none"> · Hoover: onsite health clinic, bilingual inclusion in strands, AVID and Pathway programs · CVCA: special education inclusion · The Met: focus on one student at a time · CPESS, Met, St. Louis, CVCA: advisory groups · Nathan Hale: ninth-grade academy teachers support students who need extra help

*Design Principles in Action, continued***2. Adult World Immersion:** Situate students directly in the world beyond school.

Indicators	Examples from NUHS Sites
Internships, field studies, and other community-based learning	Met: all students in internships every year Hoover: all seniors do four-week internships; job shadows for all students CPESS: all seniors complete minimum 100-hour internships; all eighth through tenth-graders do one-half day per week at community-service placements Turner, CVCA: school-based enterprises and work-based learning with business partners St. Louis: all juniors complete four-week internships; all students do job shadows and informational interviews
Student projects that contribute to the workplace or community	CVCA, Turner: school-based enterprises serve community St. Louis: participation in St. Louis 2004, a community project Met, CPESS: student projects contribute to workplace
Analysis of the workplace as a learning site	CPESS: students use Habits of Mind in workplace; investigate sites Hoover: students write job shadow observation essays, keep journals, chart workplace behaviors and standards; business strand students interview local business owners Met: advisors help students incorporate academics in internship projects
One-on-one relationships with adults in field placements	Met: all students have a mentor at internship site Turner, CPESS: interns have mentors or site supervisors
Career exploration embedded in the curriculum and field experiences	Turner, CVCA, Hoover: academies and strands are organized by career theme St. Louis: career themes of life sciences and technology Met: internships and advisory groups provide personalized career exploration CPESS: integrates career plans into post-graduation plans through advisory groups
Flexible block schedule	Turner: A/B block schedule (six periods, alternating days, two-hour instructional periods) CPESS: block schedule (two hours of humanities and math/science, one-hour advisories) CVCA: 4x4 block schedule for most academies; 100 minute core classes Hoover: six-period day with flexible blocking Met: individualized scheduling, students use weekly planners
Hands-on experience with technology	Turner and CVCA internships are technology-rich St. Louis: all students develop proficiency in computer applications Hoover and the Met: students create digital portfolios

3. Intellectual Mission: Articulate a common intellectual mission for all students.

Indicators	Examples from NUHS Sites
Common core goals across the curriculum	<ul style="list-style-type: none"> · Hoover Learner Outcomes (HLOs) · Turner’s “two-for-one” diploma, SCANS competencies · CPESS Habits of Mind · Met Learning Goals
Curriculum integration across vocational and academic areas	<ul style="list-style-type: none"> · CVCA: integrated curriculum, teachers in interdisciplinary teams · Hoover: career strands integrate vocational and academic study · Turner: integrated curriculum units, application of critical thinking skills with hands-on learning · St. Louis: project-based learning integrates disciplines · Met teachers guide individualized integrated learning
Cross-cutting standards developed and assessed internally	<ul style="list-style-type: none"> · Hoover: to graduate, every senior must demonstrate progress towards all six HLOs to a panel of adults; teachers examine student work collaboratively to improve instruction · CPESS and Met teachers set and assess common standards for exhibitions and graduation by portfolio
Assessment focused on what students understand and can do	<ul style="list-style-type: none"> · Hoover, Turner, CPESS, Met, CVCA, St. Louis: portfolios, exhibitions
Field experience connects with academics, and vice-versa	<ul style="list-style-type: none"> · St. Louis, CPESS, Met: advisory activities and discussions connect workplace experiences to academics · Met students develop projects that incorporate academic learning in work experience · CPESS students apply Habits of Mind in community service and internships; CPESS provides training and materials for site supervisors · Hoover Health and Human Services humanities students write field observation and career essays
Program standards that allow all students to qualify for four-year college	<ul style="list-style-type: none"> · Turner: “two-for-one” diploma for high school credit and industry certification · CPESS: college visits for all students, beginning in the 7th grade; students make explicit plans for college, grades 11–12; advisory program provides help with college applications; many students take college courses while in high school · Hoover Learner Outcomes (HLOs) · Met Learning Goals

Design Principles in Action, continued

4. Contexts for Reflection: Provide integrated, reflective contexts for students and teachers to uncover the meaning of their work.

Indicators	Examples from NUHS Sites
Reflection as an explicit academic routine	All NUHS sites: learning journals Met, St. Louis, CPESS, CVCA: advisory groups Hoover: humanities classes serve as seminar for interns; students write observational essays, keep journals
Internship seminars, and advisory groups	St. Louis, the Met, CVCA: advisory activities and discussions that promote reflection CPESS: internship seminars; advisory provides a place to discuss work experiences and prepare portfolios Turner: student-run seminars connect with internship experiences Hoover: humanities classes as context for senior internships
Regular exhibitions of student work	All NUHS sites: student exhibitions to adult and peer panels; public exhibitions
Internship and other academic journals	Hoover internship and job shadow students keep logs and journals Met students keep journals of work experiences CPESS Division I students keep community-service journals
Student and teacher portfolios	CPESS: internship portfolios required for graduation Met: portfolios based on learning through internships Hoover: portfolios require students to relate their work to HLOs Ingraham, West Seattle: electronic portfolios

5. Community Partnership: Involve family and community in program planning, implementation, and evaluation.

Indicators	Examples from NUHS Sites
Well-managed partnerships with community organizations	Turner: Fannie Mae Academy mentors take part in planning and assessment Met: full-time staff person coordinates internships; mentor is part of learning plan team CPESS: site supervisors/mentors receive primer on Habits of Mind; Community Service/Internships office, directed by a teacher, provides administrative, academic, and personal support CVCA: business advisory boards take active role in academies
Family as partner in developing learning plans and viewing student work	Met parents sit on learning plan team, assess exhibitions Hoover parents receive portfolio report cards
Use of community resources for learning	All NUHS sites: wide array of internship and community-service sites CPESS, CVCA, Met students enroll in community college and college courses
Curriculum that explores and addresses community needs	St. Louis 2004 project Met internships CPESS community-service program Turner academies and projects geared toward Dade County workforce needs, e.g., diesel mechanics program. Horticultural program includes local highway beautification Hoover ninth-grade program includes community service
Post-secondary articulation agreements, e.g., dual credit, advanced standing	Hoover: alternative transcripts with University of California and state systems CVCA: all academies develop articulation agreements CPESS builds relationships with colleges CPESS, Met, CVCA students take courses at local colleges St. Louis: Tech Prep Consortium with St. Louis Community College system Turner: “two-for-one” diploma includes industry certification
Public engagement activities	Met portfolio describes program, presents data Turner: yearly data profile CPESS: brochure, videos, visits to college admissions offices, participation in professional organizations and conferences CVCA, St. Louis: yearly exhibition

Design Principles in Action, continued

6. Teacher Ownership: Support the teacher as designer, inquirer, and clinician.

Indicators	Examples from NUHS Sites
Common planning time for teacher teams	St. Louis teams meet daily during students' computer-based learning time CPSS staff meet for 90 minutes weekly while students are in community-service placements CVCA interdisciplinary teams meet for 90 minutes weekly Hoover: weekly team meetings Turner: weekly planning time, academy retreats Nathan Hale: planning time for integrated teacher teams
Teachers in leadership roles	Turner, CVCA: academy leaders Hoover: career strand leaders Met offers principal training for teachers Nathan Hale, West Seattle: teachers participate in decision-making process
Support and resources for teachers' learning	Turner: common planning time eight to ten hours/month, Academy retreats, summer curriculum planning institutes, inservice workshops St. Louis: professional development integrated with graduate credit Hoover: summer institutes, six-week mini-sabbaticals (professional growth seminars) CVCA: summer and winter staff development days/labs CPSS: staff development two hours/week
Training for effective small group process	Turner: Critical Friends training; explicit process for developing integrated curriculum